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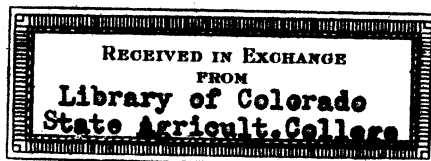
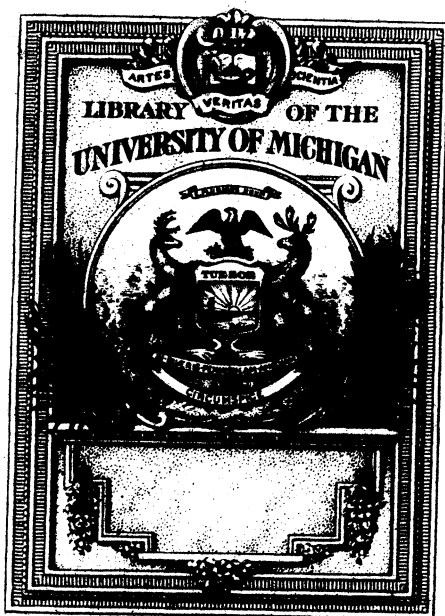
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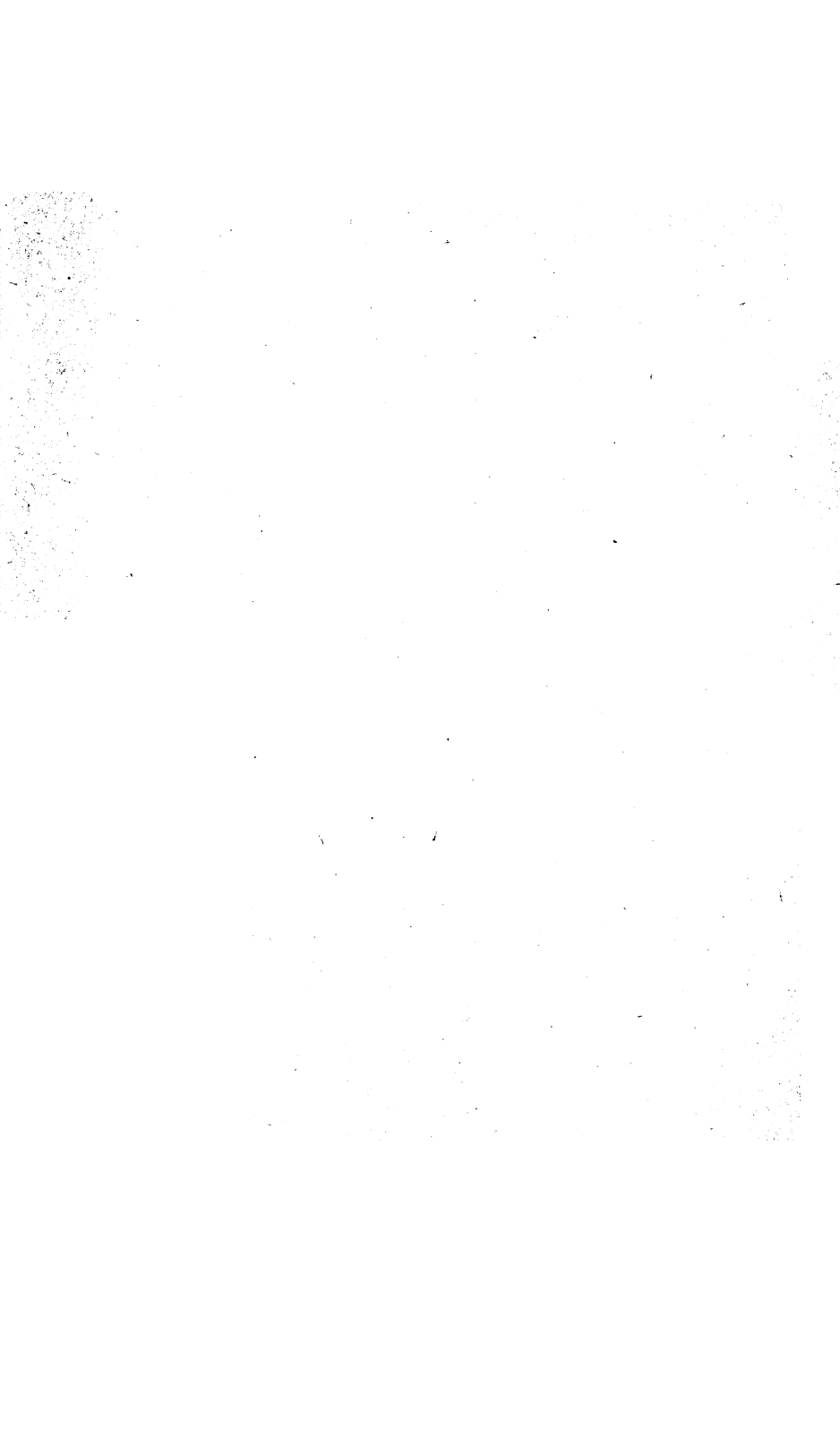
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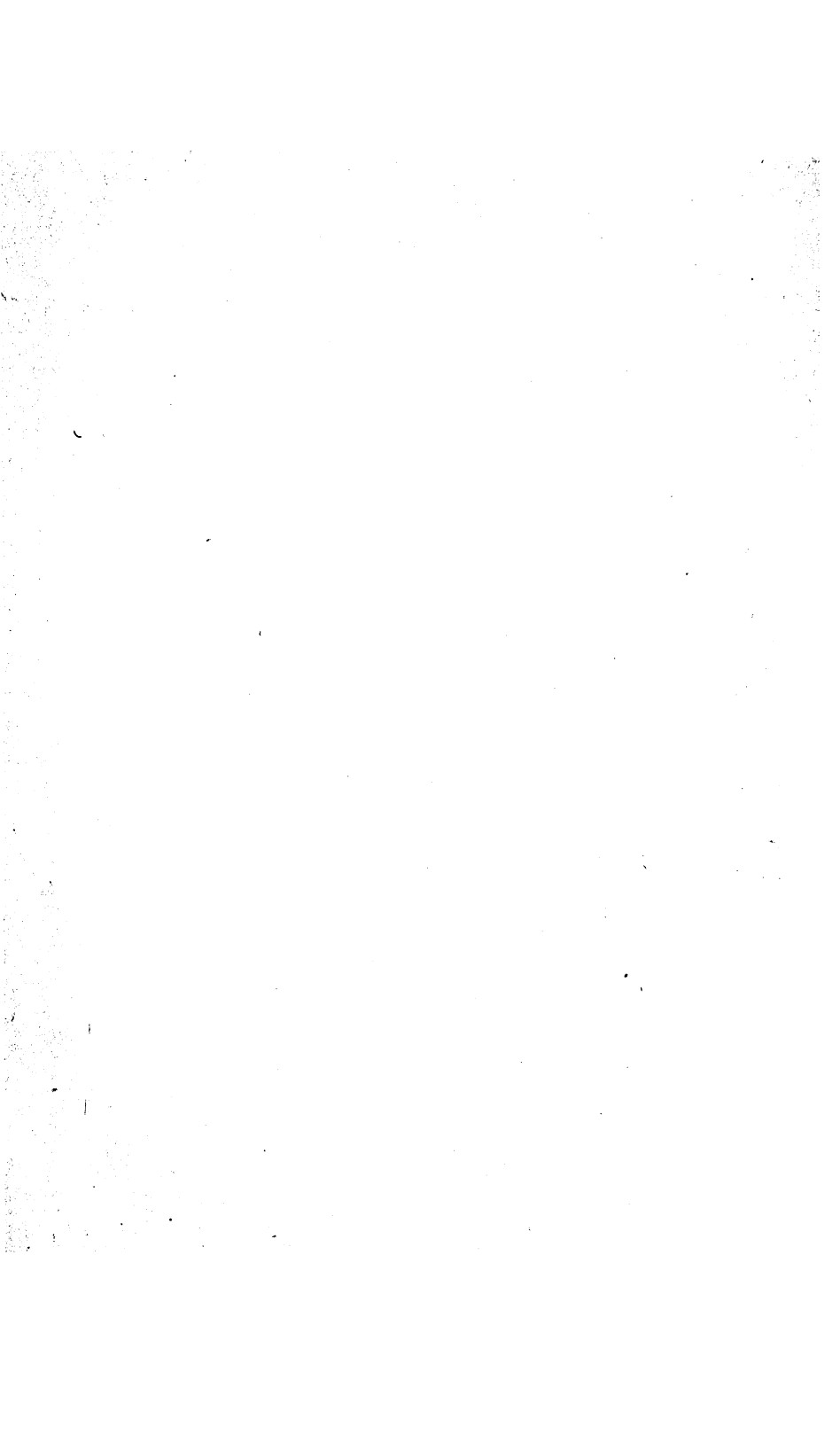
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REPORT

OF THE

New York (State) Legislature, Assembly.

TENEMENT HOUSE COMMITTEE

72811
AS AUTHORIZED BY

CHAPTER 479 OF THE LAWS OF 1894.

TRANSMITTED TO THE LEGISLATURE JANUARY 17, 1895.

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STATE OF NEW YORK.

• No. 37.

IN ASSEMBLY,

JANUARY 17, 1895.

R E P O R T

OF THE

TENEMENT HOUSE COMMITTEE OF 1894.

To the Senate and Assembly of the State of New York:

The tenement-house committee have the honor to submit their report, as authorized and required by the following act:

CHAPTER 479 OF THE LAWS OF 1894.

AN ACT appointing a committee to examine into the tenement-house question in the city of New York and to report to the next Legislature

(Became a law May 4, 1894, with the approval of the Governor. Passed, three-fifths being present.)

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The Governor shall appoint seven persons, citizens and residents of New York, a committee to be known as the tenement-house committee. Said committee shall meet within 10 days after the passage of this act for organization. It shall elect a chairman and appoint a secretary; it may employ such

counsel, assistants and experts from time to time as it may deem necessary. The total expense of the committee shall not exceed the sums hereinafter appropriated. It may fix the number of commissioners necessary for a quorum, make rules for its government and direction of its work, and fill the vacancies in the committee by death or otherwise.

§ 2. The duties of said committee shall be to make a careful examination into the tenement-houses of the city of New York; their condition as to the construction, healthfulness, safety, rentals and the effect of tenement-house life on the health, education, savings and morals of those who live in such habitations, and all other phases of the so-called tenement-house question in the city that can affect the public welfare.

§ 3. The committee shall have power to subpoena witnesses before it with or without papers by a subpoena signed by the chairman, to administer them oaths and to compel their attendance by attachment to be issued on the order of the committee and served by any policeman of said city; witnesses shall be paid the fee paid witnesses in courts of record.

§ 4. The members of the committee shall receive no compensation for their services, but the expenses and disbursements incurred by them in the discharge of their duties as said commissioners shall be paid. The commission shall have power to fix the compensation of its counsel and other employees.

§ 5. Said committee shall make a full report to the next Legislature at its opening of its work, with such recommendations as it deems wise to enable the best and highest possible condition for tenement-house life in said city to be attained, and the committee shall cease to exist when such report is made.

§ 6. The sum of ten thousand dollars is hereby appropriated out of any moneys in the treasury not otherwise appropriated for the purpose of carrying out the provisions of this act. The expenses, disbursements, payment of counsel fees and compensation of other employes of the committee shall be made on the approval of the chairman of the committee and the audit of the Comptroller.

§ 7. This act shall take effect immediately.

Under the above act the following were named by the Governor: W. Bayard Cutting, Cyrus Edson, Roger Foster, R. W. Gilder, Solomon Moses, George B. Post and John P. Schuchman. Mr. Cutting being unable to accept the appointment, the Governor appointed in his place W. D'H. Washington.

THE WORK OF THE COMMITTEE.

The committee held its first meeting on Saturday, May 12, and organized by the election of R. W. Gilder, as chairman, and Edward Marshall, as secretary. The committee did not avail itself of the privilege of appointing permanent outside counsel, the two lawyers in its membership volunteering to act in that capacity.

The committee began at once the collection of existing laws of this State and other States and Territories relating to tenement-houses; sought information as to the experience of other communities; invited, through the public journals, suggestions and information from all interested in their labors, and having special knowledge of the question; and held consultations with individuals in the community conversant with different branches of the subject, including members of the Tenement-house Commission of 1884, whose work had led to such excellent results. The committee also entered into communication with various departments of the city government and with philanthropic societies. It was fortunate in having placed at its disposal, immediately, the unpublished results of the recent tenement-house census of the New York Board of Health. The United States government, through Mr. Carroll D. Wright, of the Bureau of Labor, also rendered assistance by permitting an examination of and extracts from the unpublished reports of certain investigations ordered by Congress into the condition of the so-called "slums" of New York and other cities; and the Department of State, at its request, obtained for the committee fresh information from several foreign cities. Individuals and societies that had made recent investigations likewise placed the results thereof at the service of the committee in the most full and generous manner.

At a meeting held on the 5th of June the following permanent committees were constituted:

1. Superintendence of general examination and statistics.
2. Construction as to sanitary condition and safety from fire.
3. Rentals, cost and profits, legal questions.
4. Health, cleanliness of rooms and persons (question of parks, public baths), etc.
5. Education, savings and morals (school accommodations, kindergartens, playgrounds, incomes, crime), etc.
6. Experience afforded by other communities at home and abroad.

Later the following committee was also constituted:

7. On public hearings and reports.

The committee immediately undertook to ascertain by examinations conducted under the superintendence of its secretary, Mr. Edward Marshall, the worst existing conditions. The committee first examined a number of cellars ordered vacated by the Board of Health. A number of houses unfavorably reported to the committee; at the committee's request, by the said board were also examined, and afterward an additional number of the worst tenements, selected by the agents of the committee.

In the course of these three examinations nearly all the tenement-houses in New York were cursorily inspected, and from June to December examinations and re-examinations were continued till 8,441 selected houses had been investigated, occupied by a population of 255,033. Of these, 4,457 houses were thrown out as not coming under a sufficiently inferior classification, leaving 3,984 houses with a population of 121,323 which were surveyed with as much particularity and care as was permitted during the time, and by the means, at the disposal of the committee.*

The specific facts discovered as a result of this latter examination are clearly and succinctly set forth in the separate report of the secretary, and it is believed that these facts, with the other information obtained, and herewith reported, will be found amply to sustain the recommendations made by the committee

*It may be noted that the average of population to each house in these two totals is almost identical.

with a view to improving the conditions of tenement-house life in the city of New York.

Not only were the worst houses of the city examined, and reports made upon them, but a special inquiry was also made into the model tenements of this and adjacent communities, the results of which are given in a separate report by the secretary.

The committee prosecuted its inquiries likewise through other agencies. At its request the University Department of Sociology of Columbia College, under the direction of Professor Franklin H. Giddings, made a special report for the benefit of the committee upon the school attendance, educational opportunities and home life of the children of the more crowded tenement districts of the city.

Special inquiries were also made in behalf of the committee into the question of rentals, profits, savings and incomes, concerning which certain data are presented in the supplement; which also contains a report on the sweating system. Inquiries as to fires were made in its behalf by Mr. Simon Brentano, and by agents of the committee. The question of fire-proof construction was newly studied by experts for the benefit of the committee. The areas of house lots and city squares occupied by tenement and other buildings were studied, and maps, diagrams and photographs of some of them were prepared.

In addition to the above, five maps showing the density of population of various dates, and more fully the present situation as to density, have been carefully prepared, together with a map displaying existing parks and those about to be constructed, as well as the public school-houses of the city. The same map shows the gradual shifting of the centre of gravity of population.

The committee also held a series of public hearings by means of which a vast amount of information was gathered from general students of the subject, from numerous experts, and from other witnesses.

In addition to this the members of the committee have made personal inspections, and have individually acquainted themselves with the conditions for which they were called upon to suggest remedies.

The committee herewith presents, in as concise a form as possible, the result of its labors, including its specific recommendations, with reasons therefor, drafts of bills embodying certain essential details, the material portion of the record of its public hearings, and subsidiary reports and information derived from a number of sources, with maps, diagrams and photographs.

SPECIAL DIFFICULTIES OWING TO LOCAL CONDITIONS.

The local conditions affecting tenement-house life in New York are unique, and render especially difficult the correction of existing evils. The ample waterways which surround the city, while they give it commercial supremacy and favorably affect the health of its inhabitants, at the same time crowd the chief part of its population into extremely narrow limits. At the north there has been no difficulty in the way of bridging, but it was 270 years after the settlement of Manhattan Island before a single lateral bridge was constructed. New York has long been the chief port of entry of the western continent. Most of the immigrants coming to North America land at our port, and many of them remain permanently within our borders. Ferries, bridges and rapid transit facilities have not kept pace with the growth of population. In consequence land is held at high prices, rents are rendered comparatively excessive, landlords are driven to pile story upon story upon narrow lots, leaving on each lot an insufficient uncovered area; and, owing partly to the cost of real estate, the authorities neglect to supply the necessary open spaces. Meantime the preference for city life operates here as elsewhere throughout modern civilization; the social pressure increases, and we find, at last, that we have to deal with a community in some respects the most heterogeneous, as it is the most crowded on the face of the earth.

IMMIGRATION.

It is impossible to ascertain from existing data how many immigrants yearly remain in New York. At the office of the United States Commission of Immigration, Ellis Island, New York harbor, there are figures showing the number of immigrants coming to America who give their intended destination as New



York State. Of course, a very large part of these remain in the city; but no figures in the possession of the commissioner show how many take up their residence in New York city for a period of six months or more, in distinction from those who leave immediately, or soon after, for other points.

	Total immigr's to the U. S.	Total immigr's arriving at N. Y.	Total immigr's destined S. of N. Y.
Fiscal year ending June 30, 1891....	560,319	405,664	169,841
Fiscal year ending June 30, 1892....	579,663	445,987	234,311
Fiscal year ending June 30, 1893....	439,730	343,422	153,223
Fiscal year ending June 30, 1894....	285,631	219,046	91,109

It will be seen that 45.85 per cent. of all the immigrants who were landed at this port were destined to the State of New York. But as Acting Commissioner McSweeney states, August 10, 1894: "These figures are, to a certain extent, misleading, in so far that they do not represent the actual number, or anything like it, who remain in New York for the simple reason that * * * New York is the distributing point for the whole country, and a large portion of these immigrants giving their destination as New York go there for a short period, and from there are distributed all over the country. We have been endeavoring to secure accurate data on this question, but up to this time have been unable to satisfy ourselves that our figures are correct. If we are to take the figures as given above as an average, and it certainly would be a low average, because the low immigration of last year reduces it greatly, there were landed at this port in the decade between 1880 and 1890 between 1,600,000 and 2,000,000 souls, the latter figure being nearer accurate, who were going to New York. If you will consult the census figures for the same decade, it will be easily seen that, while these persons have landed in New York, they have not remained there, because the growth of population in the city and State, allowing the natural increase of births over deaths, if augmented by this number, would be very much greater than it now is.*"

* Commissioner Senner writes to the committee under the date of December 24, 1894: "I am of the opinion that the statistics prior to the law of March 3, 1894, are totally unreliable, and based entirely upon guesswork."

EXTENT OF THE NEWLY ARRIVED FOREIGN ELEMENT.

As to the actual numbers of the population of immediate foreign descent, the figures, though not complete, are at least much more accurate. The best data at the present moment attainable on this subject are to be found in the United States census for 1890. From the figures as to the percentage of the mother,—the only statistics available,—there has been prepared for this report a map showing in color the various nationalities composing the population. While this classification is in some respects misleading, on the other hand, for the purpose of ascertaining the proportion of the newly-arrived foreign as compared with the older element of the population, it would be misleading to count among the latter the thousands of children lately born in the various so-called foreign quarters of the city, both of whose parents are foreign, the whole family often speaking little besides a foreign tongue, and living a foreign life, surrounded by a multitude of their own people.

On June 1, 1890 (the date of the United States census), of the 1,489,627 whites in New York, 636,986 were foreign born; that is, 42.8-10 per cent. (not counting the nearly 26,000 of African descent born in America). At the same date 76.2-10 per cent. had foreign-born mothers.

Not only, then, is our population straitened for room convenient to its industries; not only is there unprecedented crowding as to areas; but the difficulties of the tenement-house question are augmented by the extraordinary agglomeration of nationalities, the novelty of these people to their surroundings, and the strain of acclimatization. A notable instance of danger arising from this condition alone is found in the experience of the fire department in rescuing from burning tenements the panic-stricken crowds who cannot understand the orders given.

DENSITY OF POPULATION COMPARED WITH OTHER CITIES OF THE WORLD.

In order to show at a glance the density of the population of New York, in comparison with that of other cities, tables have been arranged from data furnished by Dr. Roger S. Tracy. While New York, including the thinly-populated annexed districts, ranks

sixth among cities, New York below the Harlem has a greater density per acre than any other city in the world, namely, 143.2 per acre. Paris comes next, with a density of 125.2 per acre, and Berlin follows with 113.6. The population of New York in 1894 has been estimated by Dr. Tracy as 1,957,452, a figure which this statistician thinks may be somewhat excessive, as the rate of increase may not have been the usual one, owing to a decrease in the flow of immigration, and some emigration to Europe in consequence of the recent financial depression. According to the estimates based upon the above total, sanitary district A, of the eleventh ward, contained, June 1, 1894, as many as 986.4 persons to every one of its 32 acres.* The census of 1890 gives 800.47 to this district. It may be that these figures are equalled in some parts of the world, but the only information at hand indicates but one district approaching this—a part of Bombay, which had in 1881 a population of 759.66 to the acre in an area of 46.06 acres. It should be noted that the Asiatic density is comparatively more oppressive, as it is spread over much less floor space, the New York buildings having more stories. The densest small section of Europe seems to be the Josefstadt, of Prague, with its 485.4 to the acre; but New York's tenth ward exceeds this with not less than 626.26 to the acre, and the tenth ward has nearly five times the acreage of the crowded district of Prague.

THE TENEMENT-HOUSE POPULATION.

But the committee is especially charged with the duty of inquiring into "the so-called tenement-house question" in all the phases thereof "that can affect the public welfare." A tenement-house is legally described as follows:

"A 'tenement-house' shall be taken to mean and include every house, building, or portion thereof, which is rented, leased, let or hired out, to be occupied, or is occupied, as the house, home or residence of three or more families living independently of one another, and doing their cooking upon the premises, or by more than two families upon a floor so living and cooking, but having a common right in the halls, stairways, yards, water-closets or privies, or some of them."

* This district is bounded by Second, Columbia, Rivington and Clinton streets and Avenue B.

The entire population of the tenements in 1893, according to the board of health census, was 1,332,773 persons, living in 39,138 houses, out of an entire estimated population of 1,891,306. Laws touching upon tenements may, therefore, where there is no exception, directly affect 70.46 of our population. But it is estimated that of the entire tenement-house population, as defined by law, only about four-fifths really belong to the class which is usually designated by that term, the remaining fifth living in what are known as flats, or apartment-houses. The board of health, in its practical enforcement of the law, has not required its obedience in, nor made a regular inspection of, the better class of what the law defines as tenements, and which are included in that one-fifth; and in the figures above quoted the most expensive apartment-houses and their inhabitants are not included at all. The population of the city living in what are generally called tenement-houses, rather than apartment-houses, is believed to be eight-fifteenths, or a little over one-half of the total population of New York.

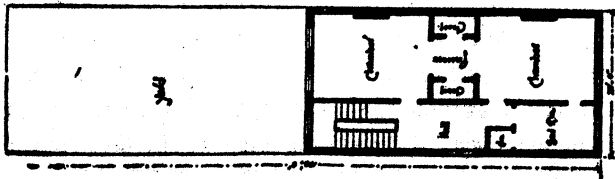
OVERCROWDING.

It is in what is, commonly known as the tenement-house population that occurs the great density. It is here that large families occupy narrow quarters,—as, for instance, a family of 11 in only two rooms,—and it is among this population that the illegal overcrowding takes place. This latter overcrowding continues to exist even when the pressure from immigration is somewhat reduced; for it represents not only the thriftiness of the lessee of the rooms, but the poverty both of the lodgers and the family which permits its floors to be covered at night by those who are willing to pay a pittance for a place to sleep, among people who speak their own language. The personal observation of the committee and the testimony of numerous witnesses* show that the overcrowding of the population, both as to house and district, has evil effects of various kinds; keeping children up and out of doors until midnight in the warm weather, because the rooms are almost unendurable; making cleanliness of house and street difficult; filling the air with unwholesome emanations

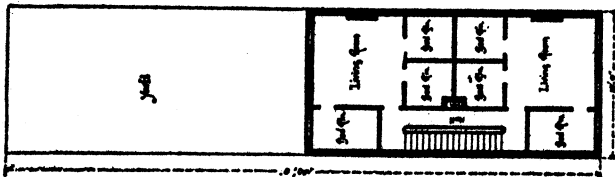
* See testimony of Dr. Daniel, Miss Woolfolk, Mr. J. B. Reynolds and others.

THE EVOLUTION OF THE "DOUBLE DECKER."

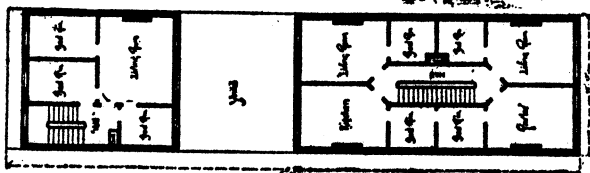
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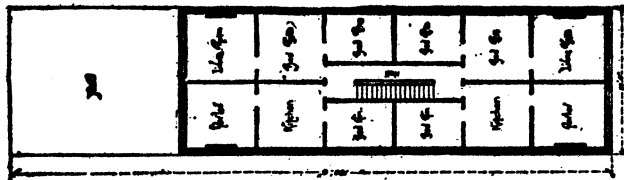
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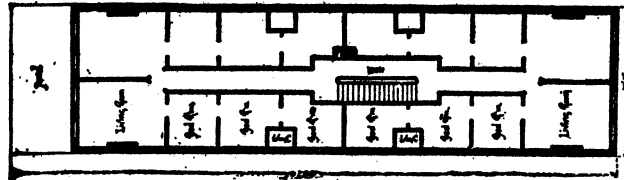
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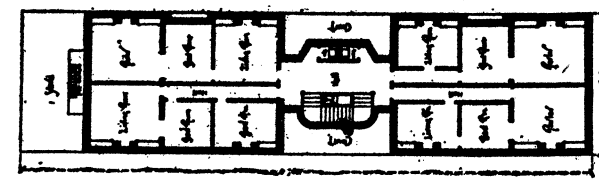
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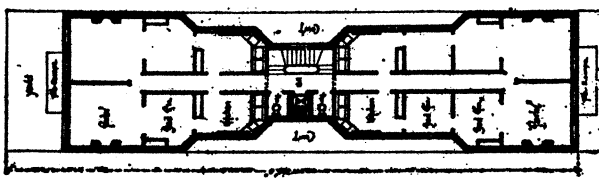
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The first of the houses built for purely tenement purposes. No interior light or ventilation.

The worst of all.

First prize plan competition of 1872. Drawn by James E. Ware.

Present type of New York "Double Decker."

An old time first-class dwelling-house. Converted into a tenement-house. The addition of the rear building.



and foul odors of every kind; producing a condition of nervous tension; interfering with the separateness and sacredness of home life; leading to the promiscuous mixing of all ages and sexes in a single room—thus breaking down the barriers of modesty and conducing to the corruption of the young, and occasionally to revolting crimes.

THE "DOUBLE-DECKER."

The overcrowding of other cities takes place mainly through the herding of human beings in a single room. For example, notwithstanding the great improvement in this respect in Glasgow since 1871, nearly 18 per cent. of the population of that city in 1891 slept and cooked and lived in a single room for each family.

The committee is glad to state that this evil, though it exists in this city to some extent, is by no means so great here as in the old world. On the other hand, we have an evil here which is peculiarly our own. The "double-decker," so called, is the one hopeless form of tenement-house construction. It began with the old New York dwelling altered over; and gradually a type was produced in some respects better and in some worse than the earlier forms of the narrow tenement. The double-decker can not be well ventilated; it can not be well lighted; it is not safe in case of fire. It is built on a lot 25 feet wide by 100 or less in depth, with apartments for four families in each story. This necessitates the occupation of from 86 to 90 per cent. of the lot's depth. The stairway-well in the center of the house and the necessary walls and partitions reduce the width of the middle rooms (which serve as bedrooms for at least two people each) to nine feet each at the most, and a narrow "light and air" shaft, now legally required in the center of each side wall, still further lessens the floor space of these middle rooms. Direct light is only possible for the rooms at the front and rear. The middle rooms must borrow what light they can from dark hallways, the shallow shafts and the front and rear rooms. Their air must pass through other rooms, or the tiny shafts, and can not but be contaminated before it reaches them. A five-story house of this character contains apartments for 18 or 20 families; a population

frequently amounting to 100 people, and sometimes increased by boarders and lodgers to 150 or more.

The only thing that bears the slightest similarity to this in Europe is to be found in the old houses surrounding the closes in High street in Edinburgh, which were constructed several centuries ago, when the need of protection from the castle compelled the inhabitants to huddle together upon the hill. There, however, no cases can be found of such narrow rooms and dark and narrow halls as exist in the double-decker on the 25-foot lot in New York to-day. These permit an agglomeration of humanity which exists nowhere else, and which under a less rigorous code of health, a less keen watchfulness on the part of the authorities as to contagion, and firemen of less courage and efficiency, would create a state of affairs absolutely fatal to the public welfare.

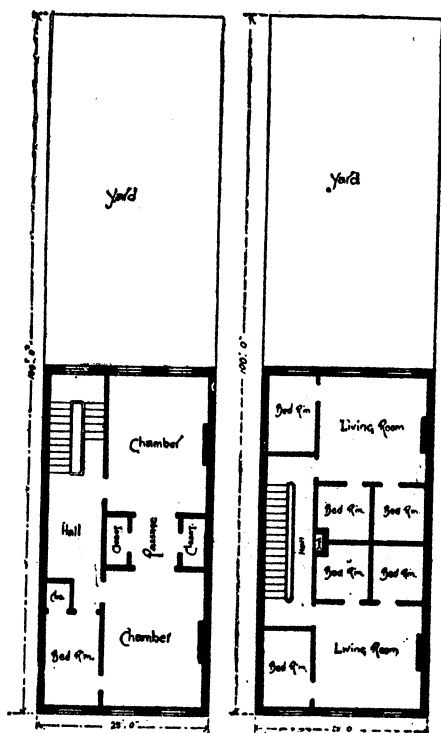
DANGER FROM FIRE.

The tenement-house population of New York, as already explained, is crowded into tall and narrow buildings not of fire-proof construction. The only alleviation of the ever-threatening danger from fire is in the system of iron fire-escapes on the outside of the buildings, and the existence of an alert and well-trained fire department. A map prepared by the fire department giving the fires in all parts of the city for a single year shows that the greatest activity of the department is in the most populous tenement-house districts. In the year ending June 30, 1894, there were 2,415 tenement-house fires, involving a loss of \$608,784—and in that time 15 occupants were killed outright and 72 injured. It is a startling fact that while less than one-third of the buildings in New York are tenement-houses, among them occur annually more than one-half of the fires.* During the half-year or more that this committee has been at work, seven fatal tenement-house fires have taken place; in each of four of these one life was lost; in one two lives, in another three lives, and in still another, seven; making a total of 16 deaths. Each of these fires has been made a subject of personal examination and inquiry by the committee, and it has besides, examined into other tenement-house fires which have occurred during the same period.

* See Mr. Brentano's report in supplement.

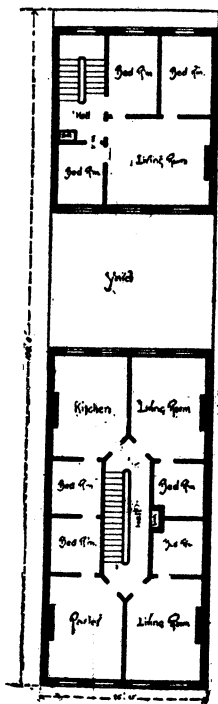
THE "DOUBLE DECKER."

TYPES OF TENEMENT-HOUSES BEFORE 1879.

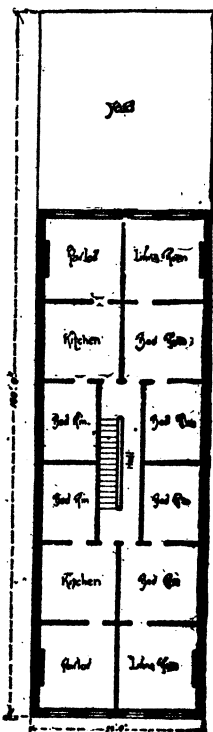


No. 1.—Plan of an old New York dwelling-house on lot 26 by 100 feet.

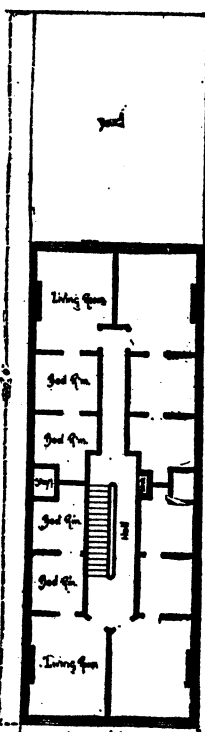
No. 2.—Plan of old dwelling transformed into a tenement-house.



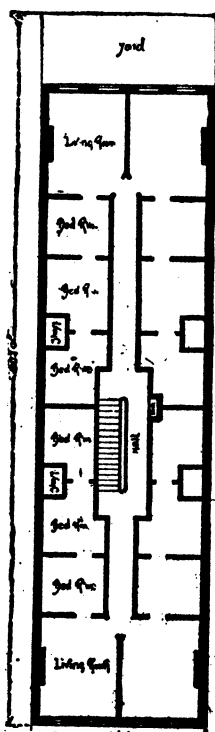
No. 3.—Two buildings on one lot 25x100.



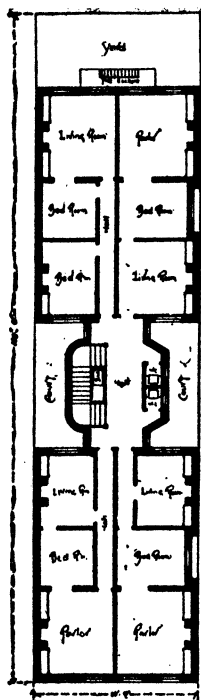
No. 4.—Type of tenement house without light or ventilation, except in outer rooms.



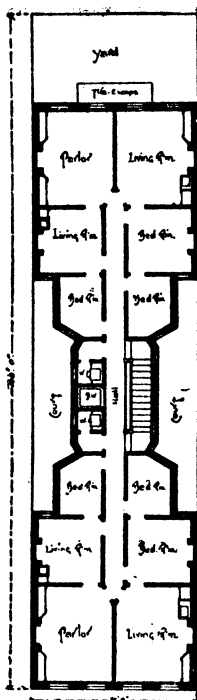
No. 5.—Type of tenement showing introduction of light-shaft.



No. 6.—Typical double decker of the old style, covering 90 per cent of lot.



No. 10.—First prize plan
-- model house compe-
tition of March, 1879,
awarded to James E.
Ware, architect.



No. 11.— Mr. Ware's modi-
fication of his prize plan.

In some cases drawings and photographs have been made of the premises, and in all cases the origin of the fire and the conditions affecting its progress have been studied.

The investigations by the committee on the subject lead to the conclusion that the laws with regard to the building of tenements should be amended in the direction of further fireproof requirements. Fire Commissioner Robbins, Fire Marshal Mitchell, Chief Bonner, Chief Bresnan, Mr. Brentano and others all testified in favor of this, and gave specific reasons, which will be found in the report of the public hearings. Nothing is more clearly proven than that elevators, light shafts, transoms and windows opening into halls, and wooden staircases,—especially those that lead upward continuously from the cellar or basement,—present all the conditions of rapid combustion. A fire started on any floor of the ordinary tenement in New York passes easily from the room or cellar where it originates and leaps up the stairway, destroying the upper stairs completely, and burning out the bulkhead. On its way it may or may not destroy other apartments than those in which it originated, but at any rate the smoke and heated gas, products of the combustion, penetrate everywhere, and are more apt to destroy life than the flame itself. Meantime, if the occupants do not rush to the staircase and perish there, they flee to the nearly always encumbered fire-balconies and the steep iron ladders, from which they are rescued by the swiftly arriving firemen, or else they leap in their fright and are maimed or killed.

The evils inflicted by a tenement-house fire should not be computed in mere statistics of death, personal injury, or of property destroyed. Such a fire, even when not reckoned serious, means a panic—with all the distress suggested by the word, and the unrecorded ills that follow such a calamity. The destruction of property, slight in money value, entails sudden eviction and generally the uninsured loss of all the worldly possessions of the tenant. When it is remembered that the larger part of our population is peculiarly subject to the above-described dangers, it becomes evident that not only should there be legislation looking to the future, but that something should be done at once to reduce the number and virulence of tenement-house fires.

It is well known that many fires originate in cellars or basements; for this reason certain hazardous occupations in these should be at once prevented or made more safe; and in future construction an unbroken fireproof floor should be required above the very lowest story. This solid floor has sanitary uses as well as value in protection from fire.

As one result of the investigation at the fire department, conducted by Mr. Brentano for the committee, it appears that more fires originate on the first floor of tenements than on any other. This fact suggests that greater safety can be secured in some cases by closing existing transoms and windows opening from stores into hallways, and that no particularly dangerous business should be allowed at all in a tenement-house.

The chief of the fire department recommends that "the entire structure shall be made fireproof throughout, with the proviso that there shall be no connection between the cellar and the main halls or stairway, and that there shall be no elevator shaft within the stairhole; that there shall be no transom lights or windows opening into the halls from any apartment." He also makes other stringent recommendations, based upon long experience, as did Battalion Chief Bresnan.*

If the committee has not gone to the full length of the suggestions offered by fire experts, it is because they have not wished to increase too greatly the cost of the narrow tenements. The new provisions are not onerous, in view of the continual reduction in the cost of fireproof material, and they are deemed necessary to the public safety.

FIREPROOF CONSTRUCTION.

In a special annexed report attention is called to the decrease in the cost of fireproof materials, and plans and estimates are attached. These have been carefully made and show that fireproof construction is much less expensive than is popularly supposed. It is to be remembered, furthermore, that the greater permanence of the building, the decreased ratio of repairs with advancing age, and the saving in insurance, are elements that tend to counterbalance the increased cost.

* Battalion Chief Bresnan died at the post of duty while this committee was closing its labors. It placed upon record its obligations to him for his continuous and intelligent services to the committee, voluntarily rendered.

The committee, nevertheless, as above stated, is far from demanding full fireproof construction in its recommendations concerning tenements on narrow lots.

CROWDING OF BUILDINGS UPON CITY BLOCKS.

The condition in certain sections of the city caused by the overcrowding of buildings is serious and quite as menacing to health as the overcrowding of inhabitants in the tenement-houses themselves. To determine this fact the tenement-house committee has had a report prepared, under the direction of one of its members, taking a section on the East side comprising an area of 51.43 acres.

No special effort was made to single out the worst existing cases, but particular care was taken in the selection of those blocks which were almost entirely devoted to tenement dwellings. The statistics deduced are perhaps as remarkable as any obtained by the committee and accentuate the necessity of a law providing that no discretion should be allowed the building department in granting permits for houses to cover more than 70 per cent. of the area of any inside lot. The law has long limited the area which should be covered, but has permitted exceptions to be made. These exceptions have become the rule, and a block was discovered in which nearly 93 per cent. of the total area is covered by buildings; others running from 80 per cent. to 86 per cent. and a total average for 34 blocks showing 78.13 of the area built upon.

This greatly reduces the means of ventilation and the breathing space of those living in the rear apartments, particularly in view of the fact that the average number of stories throughout this section is nearly 4 1-2. Taking this as an average height of buildings, the ventilation for at least the first three floors must be most inadequate and the air impure. Moreover, the extra risk, from a fire insurance point of view, in this crowded section is 12 1-2 per centum of the entire area, or, in other words, one house in eight is regarded as of a seriously inflammable character, certainly a most dangerous condition both as to buildings and humanity in such a thickly populated neighborhood.

To illustrate this condition, take the block bounded by Essex, Hester, Norfolk and Division streets, as an example. It has a total area of about an acre and a quarter (1.25), an acre and seven-hundredths (1.07) of which is solidly covered with buildings; or in other words in this block little more than one-fifth of an acre is left for the entire breathing space of more than half its population, and it is fair to say that in blocks containing rear tenements, of which this has ten, the worst overcrowded is in the cheaper rear apartments and particularly in the rear houses themselves. This block has an estimated population of 2,302. The narrow and insufficient air space is part of the time necessarily filled up with wet clothing hung out to dry.

Some of these rear buildings have but 18 inches of space between them, with windows opening from both buildings, from which garbage and all sorts of refuse are thrown into the intervening space until the air becomes foul with the accumulation of organic matter, which is almost impossible to remove. This further emphasizes the necessity of the elimination of rear tenements and the granting of power to condemn houses of a dangerous character.

The condition of the population living in the front tenements of these blocks is not very much better than that of those living in the rear, as there are few streets in this territory which are more than 50 feet in width, and a large part of this small space is taken up as a market for vegetables, fruits, meats and fish, often of inferior quality.

An example is also shown in the supplement to this report of a type of building (No. 34 Laight street), which is dangerous for human habitation, the interior space being limited and the apartments being badly situated as to light and ventilation. In this case, as it happens, there are no fire escapes. The house is an unusually large one, extending from street to street, and containing a permanent population of 243, exclusive of boarders and lodgers.

Conditions like this suggest the necessity of a more careful building department inspection, not alone of the plans and details of buildings to be erected, but also of existing buildings.*

* It should be said that under existing laws, and usages of the building department, the overcrowding as to space is not so great as in the worst instances cited. But it is believed that the law still allows too large an area to be covered.

Maps are appended showing the small open spaces, and the inflammable or hazardous buildings in six of these blocks. There are also photographs showing how narrow are some of the spaces or yards between buildings, and also how the already insufficient ventilation is interfered with by the hanging out of washing, all of which demonstrates the necessity of more breathing spaces and parks in such neighborhoods. It may be added that in one block thus mapped, with over 2,000 population, there is not a single bathtub in the entire block.

HIGH AND LOW DEATH-RATES IN NEW YORK AS ATTRIBUTED TO RACE AND NATIONALITY.

The most important evidence concerning the "healthfulness" of the tenement-houses in this city is to be found in the statistics which show the proportion of the annual deaths which occur in them to the total number of their inhabitants. In drawing inferences from this as to the effect of the present tenements upon the health of their inhabitants, great care must be observed to give due weight to the peculiar conditions which heighten or alleviate the results of any sanitary defects in the buildings themselves.

Reference has been made to the great number of the people who are new to the conditions which surround them here. It frequently happens that the habits of life and customs which are perfectly sanitary in one country are to the last degree insanitary in another. This is particularly the case when members of the human race emigrate to places the climate of which varies considerably from that of the country of their birth. It is difficult for individuals to change their habits of life. Especially is this true when applied to the uneducated classes. These facts must be kept in mind when we consider the high death-rate among our Italian citizens, who form a very considerable part of the population of New York city. Dr. Roger S. Tracy, the deputy register of the Bureau of Vital Statistics of the Board of Health of New York city, points out in the annual report for 1893 that "the death-rate for measles among the Italians is higher than among any other nationality." This is the result of two causes: (1) The insanitary conditions as to

filth, overcrowding and lack of ventilation under which the Italian immigrants elect to live; but (2) mainly to the fact that the Italians are affected by the change from the comparatively warm and even climate of Italy to that of New York, which is characterized by sudden and severe changes in temperature. Moreover, the Italians are accustomed to a diet consisting largely of farinaceous foods, which, while adapted to sustain life under the conditions in Italy, is not suitable in the colder winters of this country. Animal foods form but a small part of their diet. Consequently there is a gradual but sure deterioration in stamina among them, owing to insufficient nourishment, which makes them an easy prey to disease.

In addition to the direct effect of his native climate on the constitution of the Italian himself is the effect of the climatic conditions on his heredity. His ancestors for generations have been accustomed to a milder climate, and this has resulted in a race which lacks hardihood of constitution and which easily succumbs to climatic changes, causing respiratory diseases. Stated in another way, there is, when climatic conditions are considered, a survival of the fittest; in other words, when a race is exposed to these conditions the weaker die off and the race is continued by those who are stronger. In time, therefore, the race becomes able to stand climatic strains; but when a race is suddenly exposed to these strains, not having been properly formed during previous generations, great mortality follows; and this is the reason why the Italians in this country are found to be so peculiarly susceptible to diseases affecting the respiratory organs.

Another factor which tends to promote the spread of contagious diseases among the lower classes of Italians is the dread the latter have of all public officials. This dread extends to representatives of the health department. It results in the dangerous concealment of cases of contagious disease.

Yet another cause must be given which has its effect upon the death-rate among the Italians. This is due to the character of the dwellings in which they live. These dwellings are, for the most part, old dwelling-houses which have been converted

into tenement-houses, and, as explained hereafter, do not afford such wholesome habitations as the tenement-houses built originally for that purpose.

We have, then, as causes of the high death-rate among the Italian residents, the overcrowding, the concealment of contagious diseases, improper diet, the change in climatic conditions, and the character of the houses occupied by them. Some of the causes can not be remedied by legislation. Time and education, which will alter some of the habits of the people, can alone effect a decided reduction in their death-rate. The destruction of old houses and changes in the construction of all tenement-houses hereafter built, as recommended in another part of this report, will, however, to some extent, assist in improving the sanitary conditions in regard to their habitations.

With an average density of 57.2, i. e., an average of 57.2 tenants to the house, the highest in the city, the death-rate in the tenth ward is 17.14. This means that, while the tenth ward is first in the list of density of population in its tenement-houses, it ranks twenty-second among the wards in its death-rate, there being but two wards (the third and twenty-fourth) with a lower rate. While other factors may tend slightly to affect this, it is in the main due to the nationality of its population, which is largely composed of Hebrews. These people are a hardy, long-lived race, nor is the cause of their wonderful vitality difficult to find. The precepts of their religion afford one of the best sanitary codes in existence, and these precepts are religiously observed. Moreover, the Hebrews are an abstemious race in the use of alcoholic beverages.

It is safe to say that since the time of the settlement of Palestine by the Hebrews until a recent period the Hebrew has been the only race on earth which has been guarded to a considerable extent by sanitary laws, and we obtain thus some idea as to the reason why the race has developed such phenomenal strength.

The history of the great epidemics during the Middle Ages shows that the inhabitants of Hebrew quarters in towns were singularly exempt from contagion. This was remarkable during

the outbreak of the plague in France in the twelfth century, and during the prevalence of the so-called "black death" in England.

The low death-rate in the tenth ward was, therefore, to have been expected. The rules of life which orthodox Hebrews so unflinchingly obey, as laid down in the Mosaic law — which seems to be full of the most vexatiously minute regulations — are designed to maintain health. These rules are applied to the daily life of the individuals as no other sanitary laws can be. Alcoholic liquids at certain times are absolutely forbidden. Food must be cooked properly, and hence avenues through which the germs of disease may enter are destroyed. Meat must be "kosher," and this means that it must be perfectly healthy. Personal cleanliness at times is strictly compelled, and at least one day in the week the habitation must be thoroughly cleaned.

LOCAL CAUSES AFFECTING THE DEATH-RATE OF NEW YORK.

1. House Density of Population.

As is well known, the mere fact that one of our wards has more inhabitants than another does not necessarily mean that the death-rate is higher in the entire ward than in wards where there are fewer inhabitants. In order to ascertain the locality of the most unhealthy districts in the city, and especially to determine the causes which operate to render such districts unhealthy, so many factors have to be taken into consideration that the results of the most careful investigation can only be approximate. These results can be reached only by a cautious sifting of evidence, and by the use of comparison and exclusion.

The first well-known cause operating to effect an increase in the death-rate is density of population. A study of the death-rate of New York city as affecting different localities is essential. The statistics used in this connection, unless otherwise stated, in each case are those of the tenement-house census of 1893, taken by the sanitary police of the health department, as a part of their duty in making the semi-annual inspection of

tenement-houses required by law. This census furnishes the number of tenants in tenement-houses of five years of age and upward and the number under five for every tenement-house in New York city. The total number of tenement-houses, as determined by this census, was 39,128, which were given by street and number. The deaths during the year having been recorded by street and number, the two afforded a ready means of ascertaining the death-rate in any district, ward, block or house desired. The only difficulty which offered itself to prevent the tabulation of results was that, although the population of the front and rear houses was thus obtained separately, the deaths were reported by the attending physician by street number only, and without distinction between front and rear houses. It was, therefore, impossible to calculate the death-rates of front and rear houses separately, and in making such a calculation the population of the front and rear houses upon the same lot had to be counted together as the population of one house. The following table shows the average density per acre for the first 22 wards of the city, wards XXIII and XXIV being eliminated for obvious reasons:

TABLE A.

Wards, Acreage and Population Arranged According to Density.

Wards.	Acreage.	Population.	Density per acre.
10	110	68,383	621.66
13	107	43,577	407.26
11	196	77,698	396.41
7	198	65,578	331.20
17	331	103,190	311.75
14	96	25,738	268.10
6	86	20,245	235.40
20	444	80,499	181.30
4	83	14,920	179.75
19	1,480	196,656	132.87
9	322	41,676	129.42

Wards.	Acreage.	Population.	Density per. acre.
21	411	47,585	115.77
8	183	20,354	111.22
16	349	33,586	96.23
22	1,529	140,571	91.93
18	450	39,894	88.65
15	198	9,892	49.95
1	154	7,565	49.12
12	5,504	252,331	45.84
5	168	6,933	41.26
3	95	1,548	16.29
23	4,267	32,946	7.72
2	81	175	2.16
24	8,050	1,233	.153

Average density per acre for the first 22 wards, 103,267, wards 23 and 24 eliminated. (It should be remembered that this is merely the density of the tenement-house population.)

In studying the effect on health of the density of the population, it will not do to take the superficial density; i. e., density per acre or number of square miles, shown in Table A, as a basis of comparison, because there is hardly a section in the city entirely composed of tenement-houses. While in any particular locality the tenement-houses themselves may be overcrowded and the area covered by them, if kept separate from the rest of the buildings in the locality, might show a very high density per acre, as a matter of fact there may be so many other buildings, shops or stores, as to reduce the apparent density to a low figure. It is, therefore, better to take for the purpose of comparison the house density; i. e., the average number of tenants in each tenement-house, as shown in the following table, which also gives the general death-rate for each ward:

Average number of tenants to each house and general death-rate by wards:

Wards.	Tenants to a house.	Death-rate
1.....	36.0	33.18
2.....	21.9	28.57
3.....	32.2	16.15
4.....	31.5	33.78
5.....	29.1	32.60
6.....	38.8	27.36
7.....	43.4	22.36
8.....	24.6	31.98
9.....	27.4	26.56
10.....	57.2	17.14
11.....	35.3	22.84
12.....	32.8	20.69
13.....	41.8	23.59
14.....	40.5	35.12
15.....	27.5	29.32
16.....	30.0	23.02
17.....	37.2	21.64
18.....	30.2	29.83
19.....	36.1	20.33
20.....	28.4	24.63
21.....	32.6	23.96
22.....	33.9	22.78
23.....	22.6	18.39
24.....	12.7	7.30

The average number of tenants to each house for the entire city was 34, and the general death-rate was 22.75.*

An examination of this table clearly shows there is no parallelism between the house density of the population and the death-rate. The greatest density, 57.2, is in the tenth ward, which also has the lowest death-rate, if we except the third ward, in which there are only 48 tenements altogether, and these mostly isolated and surrounded by buildings of a different character, stores and others; and the twenty-fourth

* See supplement where statistics of density are given more fully.

ward, which is entirely suburban. In this latter there are 97 tenements, twice as many as in the third ward, but the twenty-fourth covers more than 12 square miles of territory, and should be left entirely out of consideration.

The seventh ward, having the next greatest density of population, 43.4, also has a death-rate below the average, while the fourth ward, with house density of 31.5, considerably below the average, has a death-rate of 33.78, 11 points above the general average for the city.

II. Race and Nationality.

It is evident, therefore, that there are other potent causes besides density of population at work to affect the death-rate of the tenement districts, and the most obvious one (as already noted in reference to extremes of high and low death rates), is race or nationality. It will be observed at once that the wards showing the greatest house density combined with a low death-rate, viz., the tenth and seventh wards, are very largely populated by Russian and Polish Jews. This is, in fact, the Jewish quarter of the city. On the other hand, the wards having the highest death-rate, namely, the fourth and fourteenth, the former with a house density below the average and the latter with one lower than the lowest of the Jewish districts, are largely occupied by Italians, and constitute two of the numerous Italian colonies which are distributed through the city.

It is worth a passing notice that in the sixth ward, which is also the seat of an Italian colony—in the notorious “Mulberry Bend,” where the house density is high, 38.8, the death-rate is considerably lower than in the other wards just mentioned, viz., 27.36. This is possibly caused by the large percentage of Jews in Bayard and Baxter streets, whose low death-rate in a measure offsets the high death-rate of the Italians. (The United States census of 1890 gives for this ward a population of 3,245 Jews and 9,863 Italians.)

But in the first ward we find evidence of yet some other cause than density or nationality. The house density is 36, only slightly above the average, while the death-rate is 33.18, higher than in any other ward in the city, excepting the two Italian

districts just mentioned. Yet there are hardly any Italians in the ward (only 140, according to the United States census), the population being mostly Irish and German and native, with a sprinkling of Scandinavians. This might be called the most distinctively Irish ward in the city, for in 1890 (United States census) more than half the population were born of Irish mothers, while in no other ward excepting the fourth and fifth, did the proportion much exceed one-third; and both of these wards have a large admixture of Italians. In the other wards having the largest admixture of Irish blood, the sixteenth, eighteenth and twenty-first, the death-rates were 23.02, 29.83 and 23.96 respectively, which indicates that the high mortality in the first ward can not be attributed to the Irish population. In the eleventh and seventeenth wards, where the population is more than half German, the death-rates were 22.84 and 21.64 respectively, showing that the high death-rate cannot be attributed to the German population either. We are thus forced to the conclusion that the difference in the death-rates and the excessive death-rate in some case of the different portions of the city can not be altogether accounted for by differences in house density, or the race or nationality of the inhabitants.

III. Character of the Soil and Natural Drainage of the District.

But the character of the soil on which the houses have been built should be taken into consideration. Is the mortality found to be enough greater in districts formed by filling in marshy land, or reclaiming portions of the river front to account for that difference? Is the high death-rate due largely to a damp subsoil and bad drainage? This is a difficult factor to eliminate, but some indications can be gathered by a comparison of localities. The tenth ward, with its very low death-rate, was formerly meadow land, and well drained toward the East river. The fourteenth ward, with the highest death-rate of any ward in the city, was on yet higher ground, with a comparatively dry subsoil, and no made or marshy land. On the other hand, the eleventh ward, which was once nearly all marshy or made land, has a death-rate of only 22.84, barely above the general death-rate for the entire

city. In the fourth ward, which also was formerly almost all marshy or reclaimed land, the death-rate is high, viz., 33.78.

IV. Age and Condition of Buildings used as Tenements.

It is thus made evident that the high death-rates in certain wards can not be altogether accounted for by house density of the population, by race, by nationality, or by the character of the subsoil and the natural drainage of the districts, and we have to search still farther for some cause of disease affecting simultaneously all of the wards having these high death-rates.

This investigation will be much aided by a comparison of the wards, arranged consecutively, according to their death-rates, from maximum to minimum, as in the following table:

Ward.	Death rate.
14	35.12
4	33.78
1	33.18
5	32.60
8	31.98
18	29.83
15	29.32
2	28.57
6	27.36
9	26.56
20	24.63
21	23.96
13	23.59
16	23.02
11	22.84
22	22.78
7	22.36
17	21.64
12	20.69
19	20.33
23	18.39
10	17.14
3	16.15
24	7.30

The general tenement-house death-rate of the city, at its maximum possible,* obtained by counting as belonging to the tenement class all the deaths in public institutions not otherwise definitely accounted for, was 25.77 in 1893. The table just given shows that all of the wards having a death-rate higher than this are situated below Fourteenth street, with the single exception of the eighteenth, which extends from Fourteenth to Twenty-sixth street, east. Moreover, of the remaining 14 wards, only six are situated below Fourteenth street. In these six, mostly from special causes, the death-rate is below the average. They are the third, seventh, tenth, eleventh, thirteenth and seventeenth. The third is a business locality, with only a few tenements, and these mostly isolated, numbering only forty-eight in all. The low death-rates of the seventh and tenth wards are largely accounted for by the fact previously mentioned, that they are populated largely by Russian Jews. The eleventh, thirteenth and seventeenth wards are all situated together in the northeastern portion of the district below Fourteenth street, and the low rate must be explained in other ways hereafter.

Now, in this list of wards with high death-rates, seven of the ten wards are old, long-settled wards. The wards from one to five were divided off in 1791, and the boundary lines then fixed have not been changed since. Ward six at that date included a portion of what is now ward fourteen, and was reduced to its present limits in 1827. Ward seven, in 1791, included all the rest of Manhattan island, and was reduced to its present boundaries in 1808 by the formation of the eighth, ninth and tenth wards, the eighth at that time including a portion of the present fourteenth, and the ninth and tenth comprising the remainder of the island. In 1825 the eleventh and twelfth wards were formed from portions of the ninth and tenth, the eleventh including the present seventeenth ward, the ninth including the present fifteenth, the tenth including the present thirteenth, and the twelfth comprising the whole of the territory above Fourteenth street. In 1827 the thirteenth ward was made out of the tenth, and the fourteenth out of the eighth and sixth; in 1832 the fifteenth was

*That is, the largest possible number of deaths referable to tenement-houses—such even as unknown suicides.

taken from the ninth, and in 1837 the seventeenth from the eleventh. Thus, in the latter year, the subdivision of territory below Fourteenth street came to an end.

These successive divisions and subdivisions undoubtedly represent the efforts of the city authorities to respond to the exigencies of an increasing population, and an attentive consideration of the order in which the wards were formed will show that the city grew from the first ward, where the first settlement was made, first toward the East as far as the "Swamp," then on the North river to another "Swamp," the "Lispenard Meadows," then, by the draining and filling of the "Collect Pond" and its outlets to the rivers, toward the east and west, up to the canal which made an island of the lower part of the city. Thence the city spread along the East river toward Corlears Hook, when, for some reason, the current became diverted toward the west, perhaps in consequence of the filling of Canal street. It is probable that the fourteenth ward was one of the earliest settled north of Canal street, and that, although numbered so high, the eighth ward was separated from the fourteenth, rather than the contrary; that is, the eighth at first comprised the greater portion of the fourteenth — what is now the fourteenth being probably the most thickly settled part of it — and when the portion west of Broadway became sufficiently populated to require a separation, the older part was called the fourteenth and the younger the eighth.

In this part of the city are the oldest buildings. One way in which the lower death-rate of the eleventh, thirteenth and seventeenth wards may be accounted for is that for a long time they were thinly settled. Although the eleventh ward was separated, as its number indicates, earlier than the fourteenth, it at first included the seventeenth ward, and its population was spread over a vast area, 527 acres, nearly a square mile, as against the 96 acres of the fourteenth.

Now, it is a well-known fact that human dwellings, by prolonged occupation, become so saturated with the bodily emanations of those who have lived in them, sick and well, as to be less healthy than newer houses. It has often been proposed to

construct hospitals of flimsy and inexpensive material, after the manner of a temporary shelter, and destroy them by fire every few years, to be replaced with new ones.

This result of prolonged human occupancy is made worse in this city by the rapidity with which the character of the population in the lower parts of the city has changed, and the fact that houses built as private dwellings are not fitted to serve as tenements, either in respect to light, ventilation, water supply, privacy or facilities for cleanliness. Therefore, a house which has once been a private residence, then a boarding-house, then a tenement, and finally is totally neglected by the owner (who frequently has other pressing interests) on account of the encroachments of business, the probability that it will soon have to be torn down, and the consequent inadvisability of additional expenditure to keep it in repair, becomes a hotbed, or, in more modern parlance, a culture-bed of disease. This is probably the main reason for the persistent high death-rate in the first ward, where the influence of nationality hardly enters—few Italians living there, for example—but where very few modern tenements have been built, and the only improvement is the occasional destruction of an old dwelling-house to make way for a business structure.

The same effect of the higher death-rate in the older houses may be observed, also, in the more recently settled sections of the city. In the twenty-second ward, for instance, the death-rate of the district between Fortieth and Fiftieth streets, west of Tenth Avenue, was 31.58, and between Fiftieth and Fifty-seventh Streets,, west of Tenth Avenue, 29.64; while between the same streets, and between Eighth and Tenth Avenues, the death-rates were 24.60 and 24.26 respectively, the former districts being covered with much older houses than the latter.

This was also shown in a report to the health department, dated January 18, 1890 (see City Record, February 6, 1890), dealing with the population living in houses containing 40 tenants each and upward, in that portion of the city south of Fourteenth street and west of Broadway. The general death-rate in such houses built before 1880, when the regulations relating to the plumbing and ventilation of new houses began to be enforced by a special bureau, was 23.06, while the death-rate in

similar houses built since January 1, 1880, was 22.42. This lower death-rate may have been due entirely to better light, ventilation and drainage of the newer houses, but, at any rate, it is in line with what has been shown above of old houses as compared with new ones.

Another potent cause of these high death-rates in the lower part of the city is the excessive number of rear tenement-houses in these older wards. In the sixth ward, for example, 46.53 per cent. of the population is housed on lots containing both front and rear houses; in the fourteenth ward the proportion is 44.46, and in the fourth 30.31, from which percentage it falls off rapidly to 21.05 in the tenth ward, and 20.90 in the eighth.

V. REAR TENEMENTS.

The unsanitary character of the rear tenement-houses is too generally admitted to require more than a passing notice. They generally stand almost in contact, at the rear, with the rear houses of the adjoining lots on three sides, so that the unfortunate tenants live virtually in a cage, open only toward the front. They are generally cut off from sunlight by the front houses; this makes the lower floor dark and damp, frequently necessitating artificial light at midday under a cloudless sky. If there happens to be a space a foot wide between two such houses at the rear, it is generally filled with garbage and filth of every description, making the rooms actually worse, in spite of the windows in the rear wall, than in what the English call "back-to-back" houses, which are there in course of destruction by the government.

Dr. Tatham, of Stalford, England, gives the following tables as illustrating the baneful effect upon the health of the tenants of houses constructed on this plan:

	General death-rate.
Regent Road Sub district..... 1. No back-to-back houses.....	26.1
2. Average of 18 per cent. of back-to-back houses	29.1
3. Average of 50 per cent. back-to-back houses.....	37.3

The figures for New York are, if anything, more significant, as shown in the following table:

Wards.	Death-rate in houses standing singly on a lot.	Death-rate in houses where there are front and rear houses on the same lot.
1	29.03	61.97
2	28.57	.....
3	15.55	22.55
4	31.74	38.47
5	33.04	20.49
6	28.44	26.12
7	21.66	28.73
8	30.68	36.91
9	25.86	34.55
10	17.08	17.37
11	22.93	22.47
12	20.67	29.05
13	22.82	27.68
14	35.74	34.34
15	29.91	26.33
16	22.60	27.40
17	20.76	25.76
18	29.50	33.39
19	20.29	23.05
20	23.72	28.81
21	23.81	26.79
22	22.32	31.39
23	18.31	49.38
24	7.30	.....
	<hr/>	<hr/>
	22.21	27.66
	<hr/>	<hr/>

The most cursory examination shows that the death-rates are very high where there are rear tenements, running up to 61.97—an enormous death-rate—in the old first ward, and being 27.66 for the entire city, against 22.21 for the single tenements. In a few wards, the death-rate of the front and rear tenements is less than that of the single tenements, and one of those wards, the fourteenth, is one of the unhealthiest in the

city. In the fifth ward there are only four such lots altogether, too small a number for a fair comparison, and the same thing may be said of the third and twenty-third wards, which have only two each. The death-rate in such houses being so generally higher than in the single houses, it is difficult to explain the fact that it is lower in the sixth, eleventh, fourteenth and fifteenth wards in any other way than by supposing that from those wards a larger number of persons were admitted to the hospitals, without giving their previous residence, than from four wards. The fact that there is a disproportionately large foreign population in these wards strengthens this belief. But in any event these exceptions do not seriously affect the evidence of the table, that the death-rate, as a rule, is greatly raised by the use of rear houses as dwellings.

If we take the death-rate of children as a test, the rear tenements show themselves to be veritable slaughter-houses, as shown in the following table, which only covers the lower wards, where such houses are numerous:

Wards.	Death-rate of children under 5 years of age in single tenements.	Death-rate of children under 5 years of age in front and rear tenements on same lot.
1	109.58	204.54
4	105.69	114.68
5	107.99	64.52
6	103.56	99.54
7	61.78	72.58
8	95.58	129.56
9	92.78	130.56
10	57.20	62.58
11	73.12	71.49
13	83.05	100.59
14	129.56	114.12
17	62.04	78.36

It is unfortunate that it was found impossible to make a direct comparison between the death-rates in rear tenements, by themselves, and the death-rates in other houses. But the deaths in the city are reported by street and number, and as the front and rear houses on the same lot have the same number, it is

evident that the rates could not be calculated separately. In the report of January 28, 1890, already referred to, the general death-rate for lots containing both front and rear houses was 25.05, against 22.42 for other houses of the same class, in the same part of the city.

The excessive death-rate in rear houses is not entirely due to the sanitary environment of the tenants. The rooms in such houses are cheaper than others, and are, therefore, occupied by a poorer class of tenants, who suffer more privation of all sorts, and are often physically inferior to start with. Then, too, these houses are mostly old, long built and saturated with filth, the effect of which has already been explained. In addition, the two houses on a lot, as a rule, shelter more people than the single tenements, although the latter, especially the more modern ones, are large houses, with five or six stories.

The following table will make this clear:

Wards.	Average number of tenants in single tenements on a lot.	Average number of tenants on a lot containing both front and rear houses.
1	36.3	68.0
2	21.9	....
3	32.2	66.5
4	34.5	52.6
5	29.1	61.0
6	44.4	67.8
7	44.7	68.5
8	25.9	41.7
9	28.7	36.5
10	61.4	91.1
11	37.1	58.4
12	32.8	38.5
13	46.1	55.0
14	43.6	74.3
15	27.8	52.6
16	32.1	36.0
17	39.6	58.4
18	31.3	44.1
19	36.4	48.7
20	30.8	42.2

Wards.	Average number of tenants in single tenements on a lot.	Average number of ten- ants on a lot contain- ing both front and rear houses.
21	32.8	57.8
22	35.0	42.7
23	22.6	40.5
24	12.7	....
Average for city	34.9	55.5

In this brief analysis, it is found that the following factors appear, in different degrees, to influence the death-rate in different parts of the city, namely: The density of the population, the race or nationality of the inhabitants, the character of the subsoil, and the facilities for drainage, the age and method of construction of the houses, and the crowding or isolation of the houses themselves. Of these factors, when we are considering the methods of reducing the death-rate, that is, of improving the sanitary condition of the community, race and nationality must be left out of the account. These we can not alter. Provision for drainage, both of subsoil and of the house, is made by existing legislation. Density of the population can be partially remedied by the enforcement of the present laws against overcrowding, by additional park spaces, and by increased means of intercommunication throughout the city's territory. The future tenement-house can be improved by legislation as to sanitary conditions and safety from fire.

But the legislation which will most favorably affect the death-rate of New York is such as will do away with the rear tenements, and root out every old, ramshackle, disease-breeding tenement-house in the city.

DECREASE IN THE DEATH-RATE OF NEW YORK.

By way of encouragement as to further advances in the laws relating to public health it should be noted that the death-rate has been gradually growing less since the organization of the health department in 1866. For several years prior to that

it had been so high as to alarm the inhabitants of the city. For instance, the annual death-rates for the five years before 1866 were as follows:

1861	30.85
1862	29.75
1863	34.95
1864	34.60
1865	35.32

Nor were these high rates due entirely to the Civil War, for the rates for the five previous years, when there was no war and no pestilence, were as follows:

1856	32.70
1857	32.63
1858	31.66
1859	30.95
1860	30.49

The rates for the ensuing eight years never fell below 28 per 1,000, and the decrease up to the present time has, therefore, been about 25 per cent. from 28 and upward when the department was formed to 21 during the year just ended.

As the rates for single years vary widely, being affected by transitory causes like the excessive heat of 1872, 1881 and 1892, and epidemics like the influenza, it is better to make a comparison by periods of years, by which these passing influences are in some degrees eliminated. The death-rates, for instance, by decades, were as follows:

	1865-1874.	1875-'88.	1889-1894.
Average population	893,335	1,202,945	1,685,094
Average annual deaths.....	27,041	31,894	40,557
Average annual death-rate....	30.27	26.51	24.07

The total deaths for 1894 were 41,174, giving a death-rate of 21.03 upon an estimated population of 1,957,452. The tenement death-rate can not be exactly calculated, because no tenement-house census was taken during the year. That the figures, however, if they could be obtained, would not vary essentially from those of 1893 is shown by the slight difference

between the two years in the proportion of deaths for the year, as shown in the following table:

	1893.	1894.
Total deaths	44,486	41,175
Deaths in tenements.....	28,373	26,031
Percentage of deaths in tenements on total,	63.78	63.21

If we add all the deaths in institutions to the deaths in tenements, we do not alter the proposition much, e. g.:

	1893.	1894.
Total deaths	44,486	41,175
Total deaths in institutions and tenements,	39,010	36,021
Per cent. of same on total deaths.....	87.69	87.50

SANITARY INSPECTION.

In searching for the worst conditions in its examinations, the Committee soon found that the violations of the sanitary code were frequent in the matter of accumulations in cellars, and general unsanitary conditions, many of which were due mainly to the unclean habits of the tenants. But much of this violation might have been prevented by more frequent inspections by the sanitary inspection force of the board of health. The Committee were met at once by the acknowledgment by the Board of failure, on account of an insufficient force, to comply with the requirements of the law as to two examinations of tenement-houses a year.

Mr. Fulton Cutting, President of the Society for the Improvement of the Condition of the Poor, early presented a communication in behalf of the society containing a number of valuable recommendations, among them one looking to a substantial addition to the sanitary inspection force of the board of health on account of the greatly increased duties owing to the large increase in the population. Similar recommendations have been made by other competent authorities, as well as by the board of health, and the experience of the committee leads it to conclude that such enlargement of the force is absolutely necessary in the interest of the health of the city.

Section 588 of the Consolidated Act prescribes that the board of health "may appoint and commission such number of 'sani-

tary inspectors' as the board may deem needful, not exceeding forty, and from time to time prescribe the duties and salaries of each of said inspectors, and the place of their performance (and of all other persons exercising any authority under said board, except as herein specially provided); but twenty of such inspectors shall be physicians of skill and of practical experience in said city. The additional sanitary inspectors heretofore duly appointed and commissioned may be included among the sanitary inspectors mentioned in this section, and may continue to act as such without reappointment. All of the said inspectors shall have such practical knowledge of scientific and sanitary matters as qualify them for the duties of their office. Each of said inspectors shall twice in each week make a written report to said board stating what duties he has performed, and where he has performed them, and also such facts as have come to his knowledge connected with the purposes of this chapter as are by him deemed worthy of the attention of said board, or such as its regulations may require of him; which reports with the other reports herein elsewhere mentioned shall be filed among the records of the said board."

The great advancement of sanitary science along the lines of prevention of communicable disease has, since the enactment of this law, caused the Board to economize in the force devoted to tenement-house inspection proper, in order to increase the number of physicians whose duty it is directly to prevent the spread of communicable diseases by systematic application of preventive measures. In other words, while the needs of the city have greatly increased during the past five or six years, the tenement-house inspection force has not been increased, though a very great increase of force has been effected in the division of the health department devoted to the prevention of the spread of communicable diseases.

The tenement-house inspection force proper consists of twenty sanitary inspectors, including the chief sanitary inspector. These may be classified as follows: Eight are educated physicians, 6 are sanitary engineers, 5 are experienced plumbers, and one, the chief inspector, is especially qualified for his position by long service in the health department in the lines of general sanitary work.

The division devoted to the prevention of the spread of communicable diseases contains in all, at the present time, 41 physicians, 5 of whom are classed as diagnosticians, 29 as vaccinators 25 of these are for temporary duty appointed from month to month), and 17 as medical inspectors. To some extent, the duties of the latter include a certain amount of tenement-house inspection, but these men are not available for the general purposes of tenement-house inspection work, as are those in the division of the chief sanitary inspector.

While the committee deprecates this nonincrease of tenement-house inspectors proper, the application of the forces at command to prevent contagion has been of public use. Inasmuch as the board could not obtain the necessary funds for the increase of both forces, the direct and immediate prevention of contagious disease may be considered a matter of more pressing importance than the betterment of defective sanitary conditions in tenement-houses, important as the latter is. This latter, meantime, has been notably neglected, and it is the opinion of the committee that an increase of tenement-house inspectors is imperative. The health department, with its present force, is not only unable to comply with the law requiring the semi-annual inspection of tenement-houses, but it attends with difficulty to the investigation of citizens' complaints, and other routine important work connected with tenement-house inspection.

The present force of sanitary police detailed from the police department under the existing law is 45. The organization of this force is 1 sergeant, 1 roundsman, and 43 men. These men are utilized as follows: Seven are detailed to assist in the milk inspection and food inspection service, to prevent adulteration, 2 are used for work in the office of the chief sanitary inspector, the remainder being on tenement-house work.

The committee recommends that 15 additional sanitary inspectors be added to the force, and that 5 more sanitary police be detailed from the police department. This would enable the board of health to divide the city into 33 sanitary districts, instead of 18, as at present, and would enable the department to perform fully all the duties devolving upon it under existing laws, without delay or excuse.

In relation to the inspection of tenement-houses, the matter of the detail of sanitary police, in the opinion of the committee, requires consideration. Patrolmen detailed from the police department to this sanitary squad should be especially qualified by reason of past experience to perform the duties devolving upon them. The police of New York are recruited from nearly all the vocations of life; among them are a large number of men who have a certain amount of experience in mechanical pursuits, or who are above the average intelligence, and have received a good common school education. It is believed that an examination before the civil service commission, the same to be prescribed by the board of health, should be passed by applicants for the detail before the patrolmen are considered as qualified for the service in the sanitary squad. Other branches of the health department's service are already under the civil service rules.

PUBLIC PARKS.

The two prime requisites for the healthfulness and good condition of individual tenements are air and light. These are the prime requisites also for neighborhoods. It was once popularly believed that parks were merely pleasure-grounds — civic luxuries — by no means requisite to the health of the community. Gradually as knowledge increased this opinion gave way to that now held, namely, that parks are of high importance among the health-giving conditions of a city; that in fact they are "the city's lungs."

No one can become familiar with life in the most crowded districts of New York without the conviction that no greater immediate relief can be afforded the inhabitants than by letting in more air and sunshine by means of playgrounds and small parks, and furnishing thereby, near at hand, places for rest, recreation and exercise for young and old. From the beginning this has been the belief of the committee, and it has taken pains to obtain information as to the present condition of our park system, the reason for the delay in carrying out the obvious intention of previous legislation as to the laying out of parks and playgrounds in the tenement-districts, and to gain advice concerning the proper course to be pursued in order to bring about speedy results.

We append from official sources what is believed to be an exhaustive list of park spaces owned or about to be owned by the city of New York, both within and without the city limits, with their acreage and location; also a map of the same. The committee's special province being a consideration of such open spaces as are peculiarly serviceable for the alleviation of the conditions of tenement-house life, those of less than 100 acres in extent have been placed in a separate list, as fairly within the definition of small parks.

It is evident that an emergency exists which must be met by prompt and thorough action. Some means must be found to meet what is both a public necessity and a popular demand. This demand is not only made by that part of the population directly affected, but by the public press, and by all who have studied the problem of tenement-house life in New York. During the public hearings no suggestion more frequently recurred than that in favor of small parks, and of playgrounds for children. Not only was the closing of existing park spaces earnestly deprecated, but witness after witness urged the opening of additional park areas with all possible dispatch.

The law passed in 1887, during the mayoralty of Mr. Hewitt and commonly known as the Small Parks Act, empowers the board of street opening to select, locate and lay out such public parks as it may, from time to time, determine, south of One Hundred and Fifty-fifth street, and it provides that no more than \$1,000,000 shall be expended in any one year, this amount not being cumulative from year to year.* Up to date, the following expenditures have been incurred under the act:

	Land and buildings.	Cost of taking.	Total.
Mulberry Bend Park....	\$1,476,557	\$45,498 60	\$1,522,055 60
East River Extension Park.....	503,825	18,293 88	522,118 88
St. John's Cemetery Park }	520,000	{ 3,728 42 (to date)	
Estimated further cost.. }		{ 300 00	524,028 42
Total.....			\$2,568,202 90

* "The department of public parks * * * are authorized and empowered * * * to erect and provide therein for public purposes, for the comfort, health and instruction of the people such and so many buildings as the said department of public parks, with the concurrence of the board of estimate and apportionment, shall determine to be necessary and expedient.—Small Parks Act, 1887.

Of the above there has been expended to date only the sum required for the East River Extension Park, \$522,118.88, whereas, up to January 1, 1895, there might have been expended under the act \$8,000,000.

The St. John's Cemetery Park contains 1.72 acres, the Mulberry Bend Park 2.74 acres and the East River Extension Park 8.6 acres; altogether 13.06 acres. But the work on one only of these has even been begun—the East River Extension. At Mulberry Bend the delay has been the means of placing the city itself in the unfortunate position of landlord of houses already virtually condemned, and in an extremely bad sanitary condition.

But supposing that the above parks were actually completed, what would be the situation of the most crowded part of the city as to breathing places? The area of the city below Fourteenth street is 2,528 acres, or nearly four square miles (3.95). The estimated population of this area on July 1, was 707,520. The park area is 64.654 acres, or but 2.55 per cent. of the whole area, while the proportion of the park area inside the city limits is a little over 7.5 per cent. of the whole territory.

There is an area in this same district which may be outlined as follows: Beginning at the corner of Delancey and Lewis streets and going north on Lewis to Fifth street, along Fifth street to Second avenue, Second avenue to Fourth street, Fourth street to Mercer street, Mercer street to Bleecker street, Bleecker street to Carmine, Carmine to Varick, Varick to Houston, Houston to Hudson, Hudson to Canal, Canal to the Bowery, the Bowery to Catharine, Catharine to Monroe, Monroe to Montgomery, Montgomery to Ridge, Ridge to Delancey and Delancey to Lewis, to the place of beginning. This area contains 711 acres. The district is 750 feet distant from either river, and 500 feet from any existing, constructing or proposed park. Yet it is the home of about 324,000 people. This is nearly one-sixth of the total estimated population of New York on July 1, 1894; and much more than the number of inhabitants of the entire city of either Cincinnati or San Francisco, as given by the census of 1890. The density for the whole area rises to 476.6 persons per acre. Part of this area has double this density, and as a whole the district is the most crowded in the world.

The committee is aware of a sentiment which would lead to hesitancy as to the expenditure of large amounts of money for parks in the lower wards, on the ground, as claimed, that the spread of business buildings, with additional rapid transit facilities in the future, will before very long remove the congestion in this particular region. Similar considerations have been put forth by wealthy owners of old tenement-houses as a reason, and excuse, for the policy of maintaining these tenements in an inferior condition pending the erection of business edifices on their sites. With such considerations this committee is not in sympathy.

But even if business does come in and drive out the tenements, the district will be all the healthier and more comfortable with the small parks. In view of the present tendency to high business buildings, such openings will be particularly desirable. A business district is not devoid of human occupancy after dark, and a region densely occupied during the entire day by human beings should not be left destitute of the good effects of proper and sufficient park facilities. There is no reason in humanity why, meantime, an enormous portion of our population should be permitted, year after year, and generation after generation, to live without these alleviations which the health and comfort of the people require and civilization demands.

On being questioned as to his observations abroad concerning the improvements of the people in their private and domestic conditions, Dr. Shaw testified before this committee as follows: "Undoubtedly the remarkable movement in all the provincial centers, as well as in London, for public parks, open spaces, children's playgrounds, shade trees and grass, wherever these can be made to grow, and facilities in general for fresh air and sunshine, have in the past decade played a very important part in the preservation of the general health. As these large population centers increase in numbers and area, it is more and more clearly apparent to the leaders in public affairs and in social reform that the health of the people living in the central districts requires the planting of parks and playgrounds as numerous as possible in the neighborhoods of dense population."

Not only should additional parks first be placed where at the moment they are most needed, but in character they should be

especially adapted to the local conditions. Each of these parks should have a considerable portion of its area—possibly not less than one-half—finished as a public playground, and one might be almost exclusively dedicated to such purposes.* The committee regards the need of playgrounds for the children of this teeming population so obvious that it does not consider it necessary to repeat here at length arguments in their favor with which the public are already familiar. On this point, also, they respectfully refer to the testimony accompanying this report. They heartily approve, moreover, of the suggestion of Dr. Tracy† and of Mr. Riis that whenever possible the schoolhouse and the small park should go together. They believe that also a good and sufficient playground, proportioned to the number of scholars, should be connected with every schoolhouse in the city.

The creation of new parks in crowded neighborhoods should be so managed wherever possible as to effect an incidental benefit in the complete and prompt destruction of some of the most dangerous and unsanitary houses.

As to the question that may be raised concerning the unhousing of population by the destruction of buildings for park purposes, it may be said, first, that whatever harm might come from this is more than offset by the benefits; and further that no more favorable time could be selected than the present, when the pressure from immigration is somewhat lessened.

DOCK PARKS.

The committee desires to call attention to the scheme of establishing small parks in connection with some of the city's docks. On this subject a member of the committee has prepared a separate monograph, with specially prepared designs, to accompany this report. The committee is aware that there are considerations, especially in the line of danger to commerce from fire, which must be carefully considered before such a plan can be put into operation; and it is not prepared to make any positive recommendation upon the subject. But if it should be found feasible, there is no doubt that it would prove of immense bene-

* In this direction Boston has made some interesting experiments.

† See testimony.

fit to the people during the summer months. Doubtless many lives are saved annually by the growing custom of sending the children of the tenements into the country for periods of a week or more; also, by the numerous excursions provided at private expense through various organizations; and the ferry tickets given out to mothers in order that they may take children away from the hot and overcrowded streets and houses out into the refreshing air of our bays and rivers. The docks are now also, to a certain extent, availed of for a similar purpose; but without proper facilities. The law already permits such occupancy under certain conditions, and it is greatly to be hoped that some safe and feasible arrangement may be made to accomplish the end in view. Such parks would be much less expensive than any of similar size in the heart of the city.

THE CENTER OF GRAVITY OF POPULATION.

The park map made to accompany this report shows the site of every schoolhouse. The same map also indicates the exact location of the center of gravity of population of Manhattan Island at the times of the census of 1860, 1870, 1880 and 1890. It is interesting to note the movement of this central point. In 1860 it was on the south side of Eighteenth street, midway between Fifth avenue and Broadway. In 1870 it had moved five blocks uptown to the northeast, and was at the northwest corner of Twenty-third street and Fourth avenue. In 1880 it had gone up a distance of seven blocks and was in the middle of Thirtieth street, 85 feet east of Madison avenue. In 1890 it had leaped twenty blocks and touched the east side of Madison avenue, midway between Fiftieth and Fifty-first streets. The principal cause affecting the last movement of this mathematical point was the rapid increase of population above Central Park. It is notable that while during this decade the first ward diminished in population, the lower as well as the upper east side increased.

PARKS FOR NEIGHBORHOOD NEEDS.

This rapid northward march of population is a warning as to the future, and makes clear the necessity of the city's securing proper and sufficient small park spaces in the northern districts,

according to some well-considered plan. It should be possible to prevent in the future such a condition of affairs as to park spaces as has long existed in the district below Fourteenth street. The committee is well aware of the liberal provision already made for parks in the northern districts and is sensible of the good taste and liberality that have been displayed in many of our park enterprises; but it believes that the whole matter should be more carefully studied by the proper authorities, and that there should hereafter be less accident, and individual initiative, and more system and science in the selection of park spaces adapted, especially, to what may be called the neighborhood needs of the masses of our people.

PUBLIC BATHS.

The question of public baths has been made a matter of special study and inquiry by the committee. It has endeavored to ascertain the facilities for bathing in the ordinary tenement—not a difficult matter, for in a large proportion of the tenement-houses such facilities scarcely exist. Also, it has inquired into the use made of the free municipal salt water swimming baths maintained during the summer, and of the few well-equipped bathing establishments recently opened through private benevolence, at which a small charge is made. It is evident that the bathing habit is growing among the masses of the people, and it is also evident that the practice stands greatly in need of encouragement by means of increased opportunities.

The secretary reports that out of a total population of 255,033 covered by the committee's inspection, only 306 persons have access to bath-rooms in the houses in which they live.

The only way in which the occupants of tenement-houses can bathe is by using a tub of some kind, filled from the faucet in the kitchen or from that in the hall, or with water carried up from the yard. It is apparent that such conditions as these do not encourage the practice of bathing. Nor is this all. The number of rooms occupied by a family in a tenement-house is generally so small that every inch of space is occupied. Even when the occupants are willing to incur the labor of carrying water from the faucet in the hall or from the yard, it is difficult to secure the privacy which is necessary for the bath. Dr. Jane

E. Robbins, of the College Settlement, stated in her testimony as follows: "It may as well be distinctly understood that the men and boys living in crowded tenements, as a rule, do not take baths during the winter." Dr. Robbins thought that "the people can be readily taught the necessity of being kept clean."

The fifteen free floating baths in the river are extensively used in spite of their distance from the more crowded tenement districts; and the popularity of the swimming bath should be remembered in considering plans for public baths to be used throughout the year. The average number of baths taken in the floating baths during each bathing season since 1888 is 2,500,000 of males and 1,500,000 of females. A number of societies, clubs, and other philanthropical agencies, at work in the amelioration of tenement-house life, have provided bathing facilities, generally the admirable so-called rain-bath, for the general public or for their special constituencies; and the opportunities for bathing afforded by such means are used by a constantly increasing number. At the Baron de Hirsch Trust Fund baths there has been a steady increase in the number of bathers every year since the baths opened, and it is reported that the "moral influence of the baths has already been noticeable in better habits among those who use them." At the People's Baths, conducted by the Society for Improving the Condition of the Poor, an estimate was made at the request of the committee as to the actual number of individuals who bathe in a given year. "After a careful estimate," the superintendent states: "We find that the 80,537 baths given by the People's Baths last year (1893) represented about 4,000 different people." It is thus evident that though the number of baths taken at various bathing places in the city may be large in the aggregate, the persons who actually bathe are not numerous, and the great majority of the tenement-house population is not yet reached.

Among the conditions favorable to disease, uncleanness holds high rank. The skin plays a most important part by ridding the body of its waste products. When through any cause the excretory organs of the skin are choked up, extra work is at once thrown on the other excretory organs of the body. It is impossible to increase the labor performed by any organ of

the body, without increasing the strain, and when this is done the tendency to disease in that organ is multiplied. In a thoroughly healthy body each organ has its allotted work. But nature has so arranged matters, that these organs are able to do one another's work to a certain extent. While this may go on for a time without injury, it will, if continued too long, result in disease of the overtaxed organ. The skin needs to be kept clean, if a person is to remain in perfect health. As Dr. Robbins said, in her testimony, "the neglect to bathe and keep clean often changes a small cut into a suppurating sore."

From a sanitary point of view, the results to be attained by the use of the bath are threefold: 1. The preservation of health. 2. The prevention of disease. 3. The curing of disease. Cleanliness is the watchword of sanitary science, and the keynote of the modern advice in aseptic surgery. If it apply to the street the yard, the cellar, the house and the environment of men, it most certainly should apply to the individual. The freer use of water by the tenement-house population would aid them very materially in their struggle for existence by assisting the elimination from their systems of the poisons absorbed in the sunless and airless dwellings. That several hundred thousand people in the city have no proper facilities for keeping their bodies clean is a disgrace to the city and to the civilization of the nineteenth century. These facilities have been used and are abundant in many enlightened nations, and they are being increased in every way possible. The amount of money annually spent in charity in this city amounts to millions, and the question arises whether it be not greater economy to spend more for the preservation of health and the prevention of disease, because less would then be required for the support and care of the sick and helpless. The cultivation of the habit of personal cleanliness has a favorable effect, also, upon character; tending to self-respect and decency of life.

The necessity for additional baths in New York is brought out in the accompanying testimony, and the satisfactory results of the European experiments are amply attested by several highly competent witnesses. To some of the foreign baths municipal laundries are attached, but these have not proved

successful in all cases; whereas, according to Dr. Albert Shaw, the municipal baths "are regarded as a great success wherever they have been established." Dr. Shaw testified: "The public baths of Glasgow are six or seven in number, and have cost probably \$600,000, or in round figures, \$100,000 for each establishment. They contain great swimming tanks for men and women separately, and have every kind and sort of tub, shower and special baths, including Russian and Turkish baths, and offer very special inducements to school children. * * * A small charge is made, school children in some of the towns not paying more than half a penny, one American cent, for a bath." Dr. Shaw said that in Great Britain "the aim is to conduct the baths in such a way as to make them nearly or quite self-supporting. Liverpool has a series of large baths like those in Glasgow, and so have Manchester, Birmingham, Sheffield, Leeds and a score of other flourishing provincial towns. I should say that enough money is received from the patrons upon the average to meet the cost of operation, but not enough to pay any interest or sinking-fund money upon the investment. The Russian and Turkish baths conducted in some of these establishments are sufficiently profitable to assist in lightening the expense of the establishments as a whole. I should say that from 100,000 to 150,000 people a year on the average patronize each of these large British public baths. A number of them have very recently been established in different parts of London by the district and parish authorities."

The committee believes it would conduce greatly to the public health if New York should follow the example of many of the cities of the Old World and open municipal baths in the crowded districts. It, therefore, favors the building, at the beginning, of at least one fully equipped bathing establishment on the best European models, affording every kind of bath desirable, at moderate charges.*

*As an evidence of the public interest in this subject, the following law may be cited:

CHAPTER 473.

An act to establish free public baths in cities, villages and towns. Approved by the governor May 4, 1892. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. It shall be lawful for any city, village or town to establish free public baths. Any city, village or town may loan its credit or make appropriations of its funds for the purpose of establishing free public baths.

Sec. 2. This act shall take effect immediately.

EDUCATION.

With regard to education, the committee has had the benefit of the services of the University Department of Sociology of Columbia College, under the direction of Professor Franklin H. Giddings, assisted by Mr. John F. Crowell, Fellow in Sociology, and formerly president of Trinity College, North Carolina. Professor Giddings' report forms part of the supplement, and touches upon the school attendance, educational opportunities and home life of the children of the more crowded districts of the city. An exhaustive study was made of the school population of four typical tenement blocks of different nationalities, Italians, Russian Jews and Bohemians. A special examination was also made by competent persons under Professor Giddings of the condition of certain of our schoolhouses, and Professor Giddings obtained, also, information as to the school accommodations. In his report he makes the gratifying statement that "the foreign-born population of this city is not to any great extent forcing children of legal school age into money-earning occupations. On the contrary, this population shows a strong desire to have its children acquire the common rudiments of education." He adds, and the committee joins in the assertion: "If the city does not provide liberally and wisely for the satisfaction of this desire, the blame for the civic and moral dangers that will threaten our community because of ignorance, vice and poverty must rest on the whole public, not on our foreign-born residents."

Especial attention is called by the committee both to the commendation of "the teaching force" for its "general fidelity," and the criticism of the present order of things in the public schools. Facts are brought out in Professor Giddings' report as to the darkness and bad sanitation of some of our schoolhouses; also as to the insufficiency of school accommodations; the lack of proper school playgrounds, and of sufficient kindergartens. These statements should meet with the careful attention of the local authorities, as they accord with information which the committee has obtained by other inquiry and by personal inspection.

RENTALS.

On the subject of rentals, some special inquiries were made besides those which were brought out from witnesses at the public hearings. In some cases it has been found that the rental profit of landlords has been as high as 25 per cent of the amount invested by them, but those houses were old and in bad sanitary condition and in great need of repair. They were constructed before the later laws on the subject were passed and were in many respects not subject to their operation.

There are four distinct classes of tenement-houses in the city of New York: (1) The house with but one apartment on a floor. This class includes dwelling-houses which have been remodeled or converted to tenement-house purposes; (2) the house with two apartments on a floor, entered from a common hall running through the house at the side; (3) the house with three apartments on a floor, two in front and one in the rear, with the hall in the center of the house, between the two front apartments and leading to the rear apartment, and (4) the house with four apartments on a floor, with a hall running through the center of the house. This is the class known as the "double-decker," and usually has two stores or a store and liquor saloon on the ground or basement floor.

From such general information as this committee has been able to obtain, it seems that when a tenement-house is properly constructed in accordance with the present laws, kept in good repair and in excellent sanitary condition, one of the first class, namely, the single flathouse, produces a net profit to the owner of about nine per cent. upon the value of the equity; one of the second class, namely, the one with two apartments, such as baths, water-closets, ranges, boilers and stationary wash-tubs furnished by the landlord in each apartment, realizes a net profit to the owner of about eight per cent. on the value of the equity; a house of the third class realizes to the owner a profit of about nine per cent. on the value of the equity, and one of the fourth class, 10 per cent. on the value of the equity. It is the usual custom of almost all tenement-house owners to place a mortgage of about one-half the value of the premises on the property, at five per cent. interest, thus enhancing the

value of the rents and profits on what remains—the equity. The old tenement-houses, without any improvements, such as have been mentioned, are the most profitable because they require the least repairs to plumbing, and pay a low water tax. The modern tenement-house, in which every apartment is furnished with a bath, closet, range, boiler and washtub, are less remunerative, because of the constant repairs to plumbing and the high water rate. These figures, however, as has been said above, only apply to tenement-houses in which the owners observe all the requirements of the law, and maintain them in good repair and in good sanitary condition.

MODEL TENEMENTS AND IMPROVED DWELLINGS FOR THE POOR.

No one of this committee's investigations covered a more important field than that which concerned the improved dwellings for the poor, or model tenements, now existing in or near New York city. Detailed and careful statements describing each separate enterprise of this kind will be found in the supplement. They prove, in general:

First.—That good dwellings reduce the death-rate.

Second.—That they tend to increase the morality and self-respect of the people living in them.

Third.—That they favorably affect surrounding neighborhoods.

Fourth.—That they pay, when properly managed, fair profits to their owners.

This last point is one of the most valuable brought out by this investigation. It disproves the supposition existing in some quarters, and discouraging to capital, that improved dwellings can be built and conducted only when the investor is willing to make severe sacrifices for philanthropy's sake. Model tenements do pay.

It is proper here to emphasize the fact that the general condition of the tenement districts of New York has constantly improved since in 1864 the Council of Hygiene and Public Health of the Citizens' Association made its important investigation and report. It is not possible to say now, as was true 30 years ago, that a "fearfully high death-rate prevails in this

city," or that the condition of the tenement-houses is invariably bad. The reports of the secretary of the present committee cover all the notably improper tenement-houses in the city, and many among the remainder are in excellent condition. There are hundreds of landlords in New York who give their buildings constant care; see to it that they are kept in repair, that the requirements of the law and orders of the board of health are complied with, and to them much credit is due, which it is by no means the desire of this committee to withhold. It is also true that in cleanliness and morals the inhabitants of the tenement-houses of New York compare favorably with people in like circumstances in any other city. They respond quickly to improved conditions, and conditions are constantly improving.

SAVINGS.

On the subject of savings this committee has been unable to obtain any full information, on account of the fact that most savings banks do not classify their depositors; and that there are no means of learning what savings are made by the residents of tenement-houses which they either hoard or invest otherwise than by deposits in savings banks. The only banks which furnished statistics throwing light upon the subject were the Citizens' Savings Bank, on the Bowery and Canal street, and the Bowery Savings Bank, on the Bowery and Grand street. An abstract of their reports, together with other information upon the subject, is contained in the sub-report of Mr. A. L. Reynolds furnished to the committee and hereto annexed:

MORALS.

On the subject of morals, the only conditions which have been brought specifically to the attention of the committee are those resulting from overcrowding, darkness in the halls, and the recent increase of prostitution in tenement-houses. To remedy the conditions of overcrowding, this committee has recommended an increase in the number of inspectors in the employ of the board of health, in order that the present requirements of the board of health may be enforced; and has suggested that it be made mandatory upon the board of health to require sufficient cubic feet of air to each occupant.

On the subject of darkness in the halls, the committee recommends that it should be prevented by the maintenance of a light in the same, as prescribed in the bill annexed to this report, and subsequently described. It seems clear to the committee that during the last 18 months prostitution in tenement-houses has increased to an alarming extent. The reason for this is said to be the closing of houses of ill-fame by the police during that time, the result of which has been to drive their occupants into tenement-houses, where they have continued to practice their trade. This committee has not felt competent to draw any law upon the subject; but it recommends to the Legislature that at least some provision be made to check this evil by the enactment of a law making the crimes of soliciting and the maintenance of houses of prostitution in tenement-houses offenses punishable with more severity than when they are committed elsewhere.

THE TENEMENT-HOUSE COMMISSION OF 1884.

The only former official inquiry upon this subject in this State was made in pursuance of chapter 448 of the Laws of 1884, which appointed Alexander Shaler, Joseph W. Drexel, S. O. Vanderpoel, Felix Adler, Oswald Ottendorfer, Moreau Morris, Anthony Reichardt, Joseph J. O'Donohue, Abbot Hodgman, Charles F. Wingate and William P. Esterbrook "a commission to investigate and inquire into the character and condition of tenement-houses, lodging-houses and cellars in the city of New York." Subsequently Mr. Ottendorfer resigned from the commission, and Mr. Charles S. Fairchild was elected in his place. The time of the commission to report was extended by the Legislature, and their report was not finally made until February 15, 1885.

The following twenty recommendations were made by the committee:

(1) "The abolition of all privy vaults in the city limits upon all property contiguous to all streets or avenues where sewers are laid."

A law to that effect was passed in chapter 84 of the Laws of 1887, as an amendment to section 53 of the Consolidation Act.

(4) "An amendment of section 663 of the Consolidation Act, so as to make the provision that a tenement or lodging-house

should not occupy more than 65 per centum of a city lot apply to tenement or lodging-houses thereafter altered or extended, as well as to those subsequently constructed."

This recommendation was enacted into law by chapter 84 of the Laws of 1887, but has been nullified by a proviso that the rule "may be modified in other special cases by a permit from the board of health," which permit, we are informed, has been usually granted, first by the board of health, and subsequently by the building department, which has, by a later statute, succeeded to the powers of the board of health in such a case. A similar amendment, which they recommended to section 662 of the Consolidation Act, so as to make the laws concerning windows in sleeping-rooms in tenement-houses apply to those subsequently "altered" or "extended," was not adopted by the Legislature.

(3) "That there shall be adequate water supply for domestic purposes on each story that is inhabited or intended to be occupied by any family, either by the Croton pressure or by tanks in the upper part of the building."

This recommendation was enacted into law by chapter 84 of the Laws of 1887, in an amendment to section 663 of the Consolidation Act. Trinity Church resisted the enforcement of this law, upon the ground that it was unconstitutional, and succeeded in obtaining a ruling to that effect from the General Term of the Court of Common Pleas for the City and County of New York (Health Department v. Trustees of Trinity Church, 17 N. Y. Supp. 570). In consequence, the board of health has been unable to enforce this statute so far as it applied to tenement-houses built or used for that purpose before the passage of the statute. The board of health has appealed the case to the Court of Appeals; and unless that court differs from the Court of Common Pleas concerning the constitutionality of the act, the force of public opinion will be the only means by which tenement-house owners can be obliged to furnish their tenants with those facilities for cleanliness which, in the opinion of this commission, as well as of the former one, are needed for the sanitary protection of those who live in the neighborhood of tenement-houses, as well as the inmates of the rooms which suffer from the lack of water.*

* Decision reversed, February 26, 1895 See Postscript.

In connection with the subject of water in tenement-houses, attention is called to the question of cost as discussed in the testimony of Professor Seligman, and in the secretary's report.

(4) "An amendment of section 664 of the Consolidation Act, by making the provision for the maintenance of a janitor or house-keeper apply to tenement-houses in which more than eight families live, instead of, as previously, only to those which were inhabited by more than ten families."

This provision was adopted by chapter 84 of the Laws of 1887.

(5) "An amendment of section 663 of the Consolidation Act, by providing 'that all cellars of tenement-houses and lodging-houses, where they are located over filled-in ground, or over sandy ground, or ground on which water does lie,' shall be covered with concrete, laid over not less than three inches thick of small broken stone, so as to effectually prevent evaporation or dampness,' in place of the words, 'It shall have the floor of the cellar properly cemented so as to be water-tight.'"

This provision was partially adopted by an amendment to that section of the Consolidation Act in chapter 84 of the Laws of 1887 so as to provide that the cellar floors of tenement-houses and lodging-houses thus located "shall be covered so as to effectually prevent evaporation or dampness."

(6) "That all inner rooms and hallways in tenement-houses erected after or prior to the Laws of 1879, shall have direct light and communication with the external air, by such means as the board of health may direct."

This was adopted to some extent in the provision of the amendment to section 663 of the Consolidation Act, in chapter 84 of the Laws of 1887, "every such house erected after May 7, 1887, or converted, shall have the halls on each floor open directly to the external air, with suitable windows, and shall have no room or other obstruction at the end, unless sufficient light or ventilation is otherwise provided for in said halls in a manner approved by the board of health."

(7) "An amendment of the statutory definition of a tenement-house, so that it shall include a house occupied 'by three or four families,' instead of, as before, by 'more than three families.'"

This recommendation was adopted by the amendment of sec-

tion 666 of the Consolidation Act in chapter 84 of the Laws of 1887.

(8) "That a law be passed imposing a fine or imprisonment, or both, upon any person convicted of the offense of throwing filth, urine, or foecal matter into any waste-water sink or waste pipe in any house, and the offense of keeping any filth, urine or foecal matter in their apartments, or upon their premises, for such a length of time as to create a nuisance."

This recommendation was adopted by the amendment to section 653 of the Consolidated Act, in chapter 84 of the Laws of 1887.

(9) "That the board of health be required to make a house-to-house inspection twice in each year of all tenements and lodging-houses in the city."

This recommendation was adopted by the amendment of section 658 of the Consolidation Act in chapter 84 of the Laws of 1887. The force of inspectors in the employ of the board of health has, however, proved insufficient for that purpose, although it has been the practice of the board of health to exempt the better class of apartment-houses from the semi-annual inspection.

(10) "That the sanitary police force be increased from 30, the present number, to 40, whose sole duties shall be the inspection of tenement and lodging-houses."

This recommendation was adopted by the amendment of section 296 of the Consolidation Act in chapter 84 of the Laws of 1887, which authorizes the detail of 45 police officers to the use of the board of health for sanitary purposes, but in the opinion of the committee there should be a still further increase of the inspection force, in the manner elsewhere stated.

(11) "That the sanitary inspectors, or the sanitary police, shall make a supplemental report upon all orders of the board of health within a specified time, say, four weeks after such orders have been issued, to ascertain whether the orders of the board are still complied with in reference to cellars, lodging-houses and over-crowding of tenement-houses."

This recommendation was adopted by the amendment of section 658 of the Consolidation Act in chapter 84 of the Laws of 1887, which provides that "whenever the board of health has

made any order concerning a tenement or lodging-house, it shall cause a reinspection to be made of the same within six days after it has been informed that the order has been obeyed."

(12) "That every person, or owner, having the control of, or interest in, any tenement-house shall file in the health department a notice of his or her name and address, and also a description of the property, by street, number or otherwise, and also the number of apartments in such house, the number of rooms in each apartment, the number of persons occupying each suit of apartments, and the trades or occupations carried on therein, and every person claiming to have an interest in any tenement or lodging-house may file their names and addresses in the health department.

"The object of this is:

"(a) To secure accurate statistics of tenement-houses.

"The commission has found itself greatly hampered by the difficulty of getting accurate tenement-house statistics.

"The information which this commission needs should always be in the possession of some department of the city government in an available form. The owner of a tenement-house can easily keep the department informed upon the points noted, with slight expense either to himself or to the department. To correct any evil connected with a tenement-house it is necessary to easily and quickly get all the facts concerning such house.

"(b) To enable all persons to receive copies of all notices and orders of the board of health affecting tenement-houses which they own, or in which they claim to have an interest."

This recommendation was adopted by the amendment to section 657 of the Consolidation Act in chapter 84 of the Laws of 1887, as a substitute for the former law, which provides that "Every tenement or lodging-house shall have legibly posted or painted on the wall or door in the entry, or some public accessible place, the name and address of the owner or owners, and of the agent or agents, or any one having charge of the renting and collecting of the rents for the same." (Laws 1867, chapter 903, section 9.) The law thus repealed had failed of enforcement on account of the opposition not only of the owners, but also of the

inmates of tenement-houses. The latter in many cases destroyed or defaced the notices of ownership placed on the houses in pursuance of the law. As a general rule, owners of tenement-houses in New York city have failed to obey the new law requiring a registration of their names in the health department, and the committee is informed by the board of health that the force at its disposal has been insufficient to enable the board to enforce the statute. It is the opinion of the committee that the enforcement of the statute is of great importance, and they recommend that the board of health see to it in the future that compliance therewith be made. In order to effect this, the committee recommend that the board estimate and apportionment appropriate to the use of the board of health sufficient funds for the employment of an additional clerk, who shall take charge of the registration books for tenement-houses. The committee has prepared an amendment which it hopes will make the enforcement of this law more easy in the future.

(13) "All notices and orders of the board of health in relation to a tenement or lodging-house shall be served by posting, in some conspicuous place on the house, a copy of the notice or order, each time for doing the thing in relation to which said notice or order was issued. The posting made in accordance with the section shall be sufficient service for all purposes."

This recommendation has been adopted by the amendment to section 657 of the Consolidation Act in chapter 84 of the Laws of 1887.

(14) "That a law be passed directing the board of apportionment to set aside sufficient funds to enable the board of health to execute its own orders in case of necessity, the amount to be stated by the board of health in their annual estimates for expenditures."

This recommendation does not seem to have been adopted by the Legislature.

(15) "That the board of health shall appoint a statistician or registrar, whose duties shall be to prepare the statistics of the board upon special subjects, and make semi-annual reports upon the same to the State Board of Health."

This recommendation has been followed by the board of health under authority conferred by the amendment of section 585 of the Consolidation Act in chapter 84 of the Laws of 1887.

(16) "That the board of health shall be required to make an annual report of all of its work to the mayor of the city of New York."

This recommendation has been adopted by the amendment of section 533 of the Consolidation Act in chapter 84 of the Laws of 1887.

(17) "That the mayor and delegates to be selected by the departments of health, public works, bureau of buildings and street-cleaning, be required to meet annually, between the 15th and 30th days of November of each year, for the purpose of recommending such improvements in the laws, or the execution of the laws, as may be deemed necessary."

This recommendation has been adopted by the amendment of section 533 of the Consolidation Act in chapter 84 of the Laws of 1887. The recommendation of this committee upon that subject will be found among its other specific recommendations.

(18) "That the opening of Leonard street through Pell street, as has been recommended in former years, be carried out."

This recommendation has been virtually adopted by the location of a park at Mulberry Bend, though the buildings have not yet been removed from the site.

(19) "That the city establish free winter baths throughout the tenement-house districts of the city."

This recommendation has not been adopted. In the opinion of this committee, the matter of baths is of great importance, and, consequently, this committee unites in a recommendation that bathing establishments, at which a small charge shall be made, be constructed. The reasons for this are set forth at greater length in another part of this report.

(20) "That electric lights be placed in the streets of the tenement-house districts."

This recommendation has not been fully carried into effect. In the opinion of this committee, the matter is of great importance, and, consequently, it has united in a second recommendation to the same effect.

LAWS OF OTHER STATES AND COUNTRIES.

This committee has made a careful examination of the laws regulating the construction and use of tenement-houses and dwellings for the poor in other States and foreign countries, as well as those in force now and previously in the State of New York. As a result of this investigation, they are firmly of the opinion that the laws of this State are, in this respect, superior to any that prevail elsewhere. The statutes of other States upon the subject are very meagre and in many cases are substantial copies of laws that have been passed here. The only foreign statute which they think it would be wise to follow is a clause in the British Housing of the Working Classes Act, of 1890 (see 53 and 54 Vict., ch. 70, section 21), which provides for the condemnation of unsanitary buildings, upon compensation to the owners, and contains careful provisions to prevent any undue increase in such compensation because of excessive profits due to overcrowding, sanitary defects or lack of repair. Eminent philanthropists and students of social science, who have testified before this committee, have called attention to, and in some cases have recommended the adoption of laws similar to those which prevail in Great Britain and Belgium, by which in Great Britain municipalities are authorized to construct tenement and lodging-houses and let them to their inhabitants, and in Belgium the State, through banks, which it controls, may loan money to artisans for the purpose of constructing their own dwellings. An investigation of this subject by the committee has shown that large amounts of money have been expended for the first purpose in Glasgow and Liverpool. The result is said to be an improvement in the sanitary condition of their inhabitants; but the proof of this is not conclusively established by the statistics. Complaints have been made, on the other hand, by taxpayers and property-owners, that the result has been to greatly increase the tax-rates and also, to some extent, to discourage improvement in similar buildings constructed by private owners. In Liverpool, taxpayers and property-owners have formed an association which has retained counsel with the object of checking any further expenditures in that direction. This committee is not prepared

to recommend either of these measures; nor other measures of a somewhat similar character urged by distinguished sociological scholars and philanthropists.

The laws adopted at the recommendation of the commission of 1884 have hitherto failed to accomplish much of the relief which was expected from them. This is due, in the opinion of this committee, largely to two causes: (1) The fact that the board of health has not a sufficient force at its disposal to compel their enforcement; and (2) that subsequent laws, especially chapter 238 of the Laws of 1887, chapter 486 of the Laws of 1890 and chapter 39 of the Laws of 1891, and chapters 275 and 329 of the Laws of 1892, have given, at first to the board of health and subsequently to the building department, power to dispense with the enforcement of these laws in particular instances; the practical result being that such dispensation has been given to almost every applicant. These two evils this committee has sought to obviate in the bills which it has prepared and submitted to the Legislature.

This committee is not prepared to recommend many changes in the laws, or any which are radical. Many of the evils of which complaint has been made are the natural result of poverty, and this committee does not feel itself competent to draw a bill which could legislate poverty out of existence.

SPECIFIC RECOMMENDATIONS.

This committee recommends:

1 — DESTRUCTION OF UNSANITARY BUILDINGS.

That power be given to the board of health to institute condemnation proceedings for the destruction of buildings which are so unsanitary as to be unfit for human habitation; with provision for reasonable compensation to the owners in case of such destruction.

Nothing is more clearly shown in this report than the necessity, in the interests of the public health, of destroying under due process of law the oldest and worst tenement-houses in the city.

Under existing laws the board of health is unable to compel the destruction of tenement-houses, which, in their opinion, are so unfit for human habitation that no repairs or renovation can remedy the evils which they cause. Such buildings can not now be thus destroyed unless they amount to a nuisance, in which case the owner receives no compensation. This committee has consequently drawn a bill providing for the condemnation of such buildings, and for the payment of compensation to the owner thereof in case of their destruction. This bill has been modeled upon a similar statute which has worked satisfactorily in Great Britain. It expressly provides that no compensation shall be given on account of any increase in the rental of a building because of its overcrowding or use for illegal purposes; that in case such a building is in a state of defective sanitation, or is not in reasonably good repair, the amount estimated as its value shall be what it would have been worth if put into a sanitary condition and reasonably good repair, after deducting the estimated expense of such improvement; and that in case the building is unfit and not reasonably capable of being made fit for human habitation, the amount of compensation shall not exceed the value of the materials.

2. CONSTRUCTION OF TENEMENT-HOUSES HEREAFTER TO BE BUILT.

That the construction of tenement-houses be improved so as to afford more light and air to their inhabitants and safety from fire, and, therefore,

That the present law be amended by depriving the board of health and the building department of the power to dispense with the requirements concerning the amount of open space to be left on the lots where they are constructed; and

That no tenement or lodging-house subsequently constructed shall occupy more than 70 per centum of an interior city lot; nor more than 90 per centum of a corner lot; and that, in computing the amount of the lot covered by building, all shafts or courts

of less than 25 square feet in area shall be considered as part of the solid building and not as part of the free-air space.

Also as to details as follows:

a. That no shaft or court hereafter constructed in a tenement-house, except elevator shafts or staircase wells, shall be covered with a roof, skylight or otherwise.

b. That the walls of all shafts or courts hereafter constructed in tenement-houses shall be fireproof.*

c. That in all tenement-houses hereafter constructed the first floor over the cellar or basement shall contain no openings into the body of the house and shall be fireproof.

d. That in all tenement-houses hereafter constructed, an open area shall be constructed from the level of the sidewalk in front of and extending the full width of the house, which shall contain a staircase to give access to the cellar from the street, with a proviso that these provisions concerning the openings in and access to the cellars and basements shall not apply to fireproof structures, nor to buildings of more than 25 feet in width, of five stories or less, with no more than one suite of rooms on a floor.

e. That dumbwaiters and elevators or lifts in all tenement-houses hereafter constructed which are not fireproof, shall be located on the exterior walls and shall have no opening into the cellar; and shall be separated from the cellar by solid brick walls and from the other stories of the house by fireproof walls. The openings to the elevators or lifts in the stories above the cellar to be provided with fireproof doors hung to metal frames; with a proviso that this shall not apply to elevators operated by a conductor stationed within the car, which, however, if they run to the cellar, must be inclosed there with fireproof walls and

*This is in fact covered by requirements of the existing building laws.

have their cellar-door fireproof, hung in a metal frame, and self-closing.

f. That in all tenement-houses hereafter constructed all partitions shall be solid; and all staircases fireproof, except staircases in buildings not more than 25 feet wide, which are not more than five stories high and which contain but one suite of rooms on a floor.

g. That no fanlight or window shall be hereafter placed in the partition or wall between the hall of any tenement-house which is not fireproof and any room in the same.

h. That in all tenement-houses hereafter constructed each room must have a separate window opening into the outer air; and

i. Each water-closet must have a window opening into the outer air; and the floor of each water-closet must be made water-proof, so that it can be washed or flushed without leaking.

A bill embodying all these recommendations has been prepared; and, in the opinion of this committee,—for reasons stated more fully in a previous part of this report, and also in the supplement to the same,—these provisions will greatly decrease the danger from fire, as well as promote the health of the inhabitants of tenement-houses by securing more light and better ventilation, without greatly increasing the cost of construction. The present laws require in all tenement-houses, five stories and more in height, that the first floor shall be fireproof—though it may be pierced by a staircase or otherwise.

The committee finds that the laws relating to tenement-houses and lodging-houses in the city of New York prescribe that no tenement-houses or lodging-houses in this city upon an ordinary lot shall occupy more than 65 per centum of the said lot, and in the same proportion if the lot be greater or less in size than 25 x

100 feet; but this provision shall not apply to corner lots, and may be modified or changed in special cases as to lodging-houses by the department of buildings.

Section 667 of the same law, as amended by chapter 329 of the Laws of 1892, also prescribes as follows: "The board of health shall have authority, within present provisions of law, to make other regulations than the foregoing in special cases as to the proportion of any lot to be covered by any tenement or lodging house * * * light and ventilation * * * when it shall be satisfied that such regulations will secure equally well the health of the occupants and the public health, provided, however, that in all such cases any modifications made by such regulations, shall be in accordance with the conditions of a permit in writing issued by the said board of health."

Your committee finds that under this discretionary power the area of tenements erected on 25-foot lots has been increased from 75 to 80 per cent of the lot.

3. PREVENTION OF FIRE.

That further precautions be taken to decrease the danger from fire in tenement-houses already constructed; that for this purpose a law be passed forbidding, after the first day of September, 1895, (a) the storage in any tenement-house of feed, hay or straw; (b) the maintenance after that date of any bakery or place of business in which fat is boiled in any tenement-house more than three stories in height, in which more than two families live on one floor, and which is not fireproof; (c) that after said date all openings into the halls or other parts of tenement-houses from bakeries or places of business in which fat is boiled shall be closed so as to prevent the escape of fire and smoke from them into other parts of the house, and (d) that after the same date all transoms and windows opening into halls from any portion of any tenement-house where paint,

oil, spirituous liquors or drugs are stored or kept for sale shall be removed and closed up as solidly as the rest of the wall, and all doors leading into any such hall or room from a place thus used in a tenement-house shall be made fireproof.

The number of fires in tenement-houses which are started in bakeries and other places of the character described is a fact which deserves attention by the entire community, as well as by the Legislature. The "cruller fire," or fire started by the spilling of fat used in the cooking of crullers, has become a by-word among fire insurance men and other experts. It has been urged upon the committee that where any business whatever is conducted in the basement or first floor of any tenement-house, the wall into the hall should be closed solidly, not only as to transoms and windows, but as to doors also. The committee is not prepared to ask for such a radical measure, but has deemed it important to recommend the regulations herewith presented, in view of the fact that while tenement-houses constitute less than one-third of the buildings in the city, they supply more than one-half of the fires. A bill has been drawn, which it is believed will not unduly interfere with the transaction of any business of the character mentioned, or with the wants of the community.

4. HEIGHT OF BASEMENT CEILINGS ABOVE GROUND.

That ceilings of all basements occupied as human habitations be at least two feet above the level of the ground adjoining.

Such a bill has also been prepared. While in cellars or basements the moisture from rainfall may be confined in a large measure by concrete walls and tight flooring, yet even when these are in place a certain amount will penetrate them. When people live constantly in a moist atmosphere, and especially when they sleep in a place where they are exposed to moisture, there is a tendency among them to certain forms of disease. Ventilation of basements both supplies the fresh air necessary to carry on the proper functions of life, and carries off the moist-

ure which would otherwise do injury. Experience proves that while the air will renew itself in basements having ceilings one foot above the sidewalk, there is not sufficient volume of it in movement, and every foot added to this height increases the volume of air in movement.

The present provision of the law permitting the occupancy of basements the ceilings of which are but one foot above the level of the sidewalk also fails to afford sufficient sunlight to enter the premises.

5. REMOVAL OF WALLPAPER.

That no wallpaper shall be used in any tenement or lodging-house subsequently constructed, and that wallpaper now on walls or ceilings of any tenement or lodging-house shall be removed within sixty days after the passage of an act for that purpose; the board of health to have power to make exceptions in certain specified cases.

Such a bill has been drawn by the committee, with a provision authorizing the board of health to permit wallpaper to be used in the better class of apartment-houses, or in houses in which not more than one family occupies the same floor, or in apartments which contain more than three rooms.

It is the opinion of sanitary experts that wallpaper attracts dirt and germs of disease; that it is hard to clean and to disinfect, and that it harbors vermin.

6. THE LIGHTING OF HALLS.

That the owners of houses in which the halls are not sufficiently lighted from without shall be compelled to supply in such halls sufficient artificial light, and that the halls of all tenement-houses upon each floor shall be lighted until 10 o'clock at night.

The testimony taken and examinations made by this committee have satisfied it that the darkness of the halls of the tene-

ment-houses at night and the darkness by day of the halls without windows in many tenement-houses have promoted the accumulation of filth and of germs of disease; have been a frequent cause of accidents, and have also facilitated immorality and crime. The darkness of halls is also a serious danger in case of fire. For this reason the committee has drawn a bill which provides that in every tenement or lodging-house the owner or lessee shall keep a light burning in the hallway upon each floor from sunset to 10 p. m., and that in every tenement-house in which there is a hallway without a window a light shall also be maintained by the owner or lessee in such hallway between the hours of 8 a. m. and 10 p. m. Laws requiring lights throughout the night in corridors and on staircases in hotels, boarding and lodging-houses, are in force in Massachusetts; and similar laws exist in other States. In this State laws and local regulations are in force requiring red lights in hotel corridors.

7. OVERCROWDING.

That the law be amended so as to make it mandatory upon the board of health to prevent the overcrowding of tenement-houses, so that in case of insufficient ventilation at least 400 cubic feet of air shall be afforded to each adult and 200 to each child under 12 occupying a room in such tenement-houses instead of leaving the same discretionary with the board of health, as is the case at present.

This provision is obviously desirable, and with an increased force at the disposal of the board, this work can be done more effectively. Such a bill has, therefore, been prepared.

8. THE USE OF TENEMENT-HOUSES FOR LODGING-HOUSES, STABLES AND FOR STORAGE AND HANDLING OF RAGS.

That the board of health shall not be permitted, under any circumstances, to allow a tenement-house to be used as a lodging-house, stable or for the storage or handling of rags.

These uses of a tenement-house are all liable to cause the spread of contagious diseases, and the board of health desires to be relieved of the responsibility attaching to its present authority to make exceptions to the law forbidding such uses of tenement-houses. Accordingly this committee has drafted such an amendment to the existing law upon the subject.

9. DISCRETIONARY POWERS OF THE BOARD OF HEALTH.

That the discretionary powers of the board of health in regard to tenements and lodging-houses be restricted so that they shall only apply to cellars and ventilation and permission as to private schools in tenement-houses; and, in certain cases, as to the use of wallpaper in tenement-houses, and only to regulations concerning these which are consistent with the other provisions of the act.

It is the opinion of this committee that the amendment to section 667 of the Consolidation Act by chapter 329 of the Laws of 1892 was unwise. Said amendment gave the board of health discretionary power to nullify most of the provisions of the title of the Consolidation Act in relation to tenement and lodging-houses by dispensing with their execution in certain cases. It seems to this committee that section 667, as originally enacted, gives quite sufficient power in this respect to said board.

Section 667, as originally enacted, is as follows: "The board of health shall have authority to make other regulations as to cellars and as to ventilation, consistent with the foregoing, where it shall be satisfied that such regulations will secure equally well the health of the occupants."

The amendment is as follows: "The board of health shall have authority, within present provisions of law, to make other regulations than the foregoing in special cases as to the proportion of any lot to be covered by any tenement or lodging-house, as to cellars, supply of water above the first floor in any house and the providing of fixtures therefor, light and ventilation, and the use of building or premises occupied for a tenement-house for a

school or stable or for storage of rags, when it shall be satisfied that such regulations will secure equally well the health of the occupants and the public health, provided, however, that in all such cases any modifications made by such regulations shall be in accordance with the conditions of a permit in writing issued by the said board of health."

This committee, consequently, advises the amendment of section 667 by the enactment of its original language and has drafted such a bill. The committee, however, suggests, as stated above, the continued power to permit private schools in tenements.

10. THE FILING OF OWNER'S NAME.

That the present law requiring the owner and every person having control of a tenement or lodging-house to file in the department of health a notice containing his name and address and description of property be amended so as to make the same more easy of enforcement.

A bill for this purpose has also been prepared. And the committee further recommends that the board of estimate and apportionment appropriate annually to the use of the board of health sufficient funds for the employment of a special clerk to record and index the notices thus filed. (This subject is fully discussed in that part of this report concerning the recommendations of the commission of 1884.)

11. INCREASE OF THE HEALTH BOARD'S INSPECTION FORCE.

That 15 additional sanitary inspectors be added to the force of the health department, and that 5 more sanitary police be detached from the police department to the health department, and that all police officers hereafter detailed from the police department be selected for their peculiar fitness from amongst those who shall pass a civil service examination by

the supervisory board of commissioners of the New York municipal civil service.

The larger part of the work of this committee, and especially of the house-to-house examinations by its agents, tends to show the absolute necessity of such an enlargement of the force of inspection of the New York Board of Health, and a law to that end is herewith submitted. It is necessary not only that the law should be obeyed which requires two semi-annual inspections of tenement-houses, but that the inspections should be virtually continuous.

12. SMALL PARKS, WITH PLAYGROUNDS.

That within the next three years not less than two small parks, a part of each of which shall be constructed as public playgrounds, shall be laid out and begun in the district east of the Bowery and Catharine street and south of Fourth street, and that the city be authorized to issue its bonds to the amount of \$3,000,000 for such purposes.

In the part of the city—thus designated as most urgently in need of the benefits of small parks and of playgrounds dwells, as already stated, a population of 324,000 persons. Each point in the circumference of this tract is not less than 500 feet from any existing or proposed park, and 750 feet from either the North or East river. The exact district in which the committee believes the first additional small parks should be constructed has an area of over 400 acres (402.16), with a quarter of a million inhabitants (248,908). In a portion of this latter district (Sanitary District A, Ward 11) the density is double that of the most crowded part of any other city in the civilized world; and over its entire extent the density reaches the extraordinary figure of 619 to the acre.

This committee presents a bill compelling the board of street opening and improvement to locate and begin the construction

of such parks within three years, and the appropriation of \$3,000,000 to be raised by bonds for that purpose. The bill permits schoolhouses and municipal bathhouses to be erected on these especial parks.

Another bill provides that such additional bonds be issued as may be necessary for the completion of the park at Mulberry Bend, and further provides for expenditures necessary to complete the two other parks already undertaken under the Small Parks Act. The bill does not abridge the right of the city to expend 1,000,000 annually under the Small Parks Act.

13. SCHOOL PLAYGROUNDS.

That no school building shall be hereafter erected without the same being provided with a good and sufficient playground, or playgrounds, of a size proportionate to the number of scholars in said school; and that as rapidly as possible proper and sufficient open-air playgrounds be attached to the schools now existing.

The committee urges in the strongest possible way that playgrounds be provided for the children attending the public schools. It is well known that to enable children to undergo the physical strain imposed on them while getting their education, exercise is necessary. The various outdoor games involving exercise are all health-giving, as exercise taken in the open air is much more valuable than that taken indoors. The natural instincts of children all tend in the direction of physical amusement; but we can not expect them to get the full benefit of the play-hour by running about in dark basements. These are their only playgrounds in many of our public schools, while in most of the schools, where so much of the time of the children is spent, the facilities for exercise are utterly inadequate. What is needed is at least one large playground attached to each school, and provision for this in future schoolhouses is contained in one of the bills herewith submitted.

The following recommendations, with the exception of the final one, are unaccompanied by bills:

14. RAPID TRANSIT.

That, as one of the principal means of prevention of overcrowding of houses and districts, rapid transit facilities be pushed forward as vigorously as possible.

Through the peculiar geographical shape of Manhattan island, and the breadth of the waters on two sides of its large triangle, great benefits accrue to the residents from a sanitary standpoint, owing to the abundant fresh air and excellent facilities for drainage through the North and East rivers. But the crowding of population described in various parts of this report, while it can be dealt with favorably by several methods herewith suggested, can, it is believed, be more effectually remedied by a sufficient system of rapid transit than in any other way.

15. MUNICIPAL BATHING ESTABLISHMENTS.

That, in addition to the free floating baths, maintained in the summer months, the city should open in the crowded districts fully equipped bathing establishments, on the best European models, and with moderate charges.

The committee make the above recommendation in the interests of the public health. Hundreds of thousands of our population are without sufficient bathing facilities, while it is evident that the bathing habit increases among them in proportion to the opportunities afforded. The baths now maintained by benevolent organizations at small charges are principally rain baths. The bathing habit abroad has been greatly increased owing to the popularity of the swimming baths, and it is believed that municipal establishments here will be more successful in accomplishing their purposes if swimming baths be included in their arrangements.

16. DRINKING FOUNTAINS AND LAVATORIES.

That numerous drinking fountains and sufficient public lavatories be established in the tenement-house districts.

The most crowded districts of the city are destitute of such ordinary conveniences; and the same should be promptly provided. In foreign cities, as appeared in the testimony at the public hearings, lavatories of an elaborate character have been built, with accommodations for which moderate charges are made.

17. ELECTRIC LIGHTS.

That the electric light be extended as rapidly as possible throughout all parts of the tenement-house districts.

The committee believes that great good would result from the extension of the electric light system throughout the whole city. It is beyond question that nothing tends so much to prevent crime in the streets as abundance of light. While some portions of the city are fully lighted at night, others exist where sufficient artificial light is not provided; and the criminal records show that the majority of crimes against the person take place in the latter sections.

18. EXTENSION OF SMOOTH PAVEMENTS.

That the system of asphalt pavements be extended as rapidly as possible throughout the streets of the tenement-house districts of the city.

It would seem that this style of pavement is of all others the easiest to keep clean, owing to its smoothness. Traffic through the streets on which tenement-houses are built is not, as a rule, heavy enough to require the more solid pavement of stone. In the latter pavement, while it will stand more heavy

trucking than any other, there are small cracks or interstices between the granite blocks, and in these dirt and other matter lodges in such a manner as to prevent the mechanical sweeps from removing them. Most of the material found in street sweepings, especially in tenement districts, is composed of animal and vegetable matter, containing micro-organisms of pathogenic character. Not only can asphalt pavement be thoroughly swept, but, when necessary, as in times of threatened epidemic, it may be washed as clean as the floor of a house. It was stated by a witness before the committee that an objection to the asphalt system had been made on the ground that, owing to the absence of noise when carts or wagons are driven over it, children playing in the street are not warned of the approach of these vehicles, and are, therefore, in danger of being run over. The committee has considered this reasoning carefully, but it finds itself unable to attach any great importance to the objection. This very absence of noise is one of the greatest advantages of the system, especially in the more crowded tenement-house districts.

19. SCHOOLHOUSES AND KINDERGARTENS.

That a thorough inquiry be made as to the condition of the older schoolhouses in New York, and as to the sufficiency of school accommodations in general; and that the number of kindergartens be largely increased in connection with the public school system.

From information obtained from the bureau of education at Washington, and from direct correspondence with boards of education throughout the country, the committee learns that in 180 communities of the United States kindergartens are at the present moment maintained either by the State or local authorities, and in 162 communities they form a part of the local public school system. Outside of the normal college, the city of New York sustains but seven kindergartens, with 191 pupils. Eleven cities in the country maintain more kinder-

gartens than are connected with the public schools of New York. Rochester, in this State, has more than New York, and there are nearly twice as many in Albany, while such cities as Milwaukee, Philadelphia, Boston and St. Louis have each from over 40 to 84 kindergartens. From every city where the committee has made inquiries comes strong indorsements of the system, and there is a constant increase in the number of kindergartens. There is no city in the country with greater need for public kindergartens than New York, and there are few of the larger cities so poorly supplied with them.

20. PROSTITUTION IN TENEMENT-HOUSES.

That a law be passed making the offenses of soliciting and the maintenance of houses of prostitution in tenement-houses punishable with greater severity than when they are committed elsewhere.

The reasons for this recommendation are given in full in the report of the secretary, and in some of the testimony at the public hearings.

21. COMMISSION ON TENEMENT-HOUSES.

That the present tenement-house board, consisting of certain city officials, be abrogated, and that special commissions, with full powers of examination and recommendation, be constituted by the Legislature at intervals of not more than five years.

The committee is informed that the board, which was created in pursuance of the recommendation of the tenement-house commission of 1884, has failed to meet regularly; and in fact few recommendations have been made by them; though an interesting report was by them issued during Mayor Hewitt's term. The individual ex-officio members of the commission can effectively improve tenement-house conditions simply by doing their duty in executing the existing laws. The committee is of the opinion that a permanent commission for the purpose of recom-

mending changes in the law, which they have no power to enact, is an anomaly in our jurisprudence; experience has proved its inefficiency; and it is consequently recommended that this law be now repealed; and the committee has prepared a bill to that effect. It suggests, in its place, that another statutory commission upon the subject be created by the Legislature every five years. There is no civic problem so difficult or of such vital importance to the health and morals of the people of the city of New York.

R. W. GILDER, *Chairman.*

CYRUS EDSON,

ROGER FOSTER,

SOLOMON MOSES,

GEORGE B. POST,

JOHN P. SCHUCHMAN,

WILLIAM D'H. WASHINGTON,

EDWARD MARSHALL, *Secretary.*

SUPPLEMENT No. 1.

Secretary's Report.

Gentlemen.—I have the honor to report the result of the investigation of the tenement-houses of New York city, which I have made at your direction:

A tenement-house, in the eyes of the law, is a building in which three or more families live independently. The health board reports the existence of 39,000 odd tenement-houses in New York city. A certain proportion of these consist of high-class apartment and flat-houses, which at the discretion of the board are omitted from its regular tenement-house examinations and reports, and which do not, properly, come under the jurisdiction of your committee. Thirty thousand odd of the remaining tenement-houses were, however, so inspected by your committee's examiners that from them 8,441 were selected as demanding detailed examination because of various imperfections. The object of this examination was to discover the worst conditions and their extent, and from the 8,441 houses inspected, I have selected 3,984 as typifying this. Reports upon these buildings have been, therefore, transmitted to your committee, while 4,457 reports on houses which I have deemed to be in too good a condition to illustrate the worst phases of existing conditions, have been thrown out.

The investigation began June 3 and ended December 4. It was carried on by four corps of examiners. The first two corps inspected 2,425 houses reported to your committee by the board of health as being in a persistently unsanitary condition. These were thought to be the worst houses in the city. They were examined with the utmost care.

The duties of the first corps were to examine and report separately on the condition of each family in these 2,425 houses and the condition of the apartment in which it lived. This examination covered 15,726 families, concerning which the following details were called for on the inspectors' reports:

Date of visit.

Street and number.

Number and size of rooms in this apartment.

Cleanliness of this apartment.

Location and amount of water supply.

Is there a bathroom in this apartment?

Number of families in this apartment.

Number of persons not boarders in this apartment.

Number of boarders age and sex.

Total number of persons over 16, male and (separate question) female.

Total number of persons under 16, male and (separate question) female.

Original nationality.

Weekly income per family.

Rent of this apartment.

Sanitary defects of this apartment.

Defects of lighting and ventilation.

Following this a space was left for such additional remarks as the inspector wished to make on points not covered by the questions. The inspector was then instructed to sign his name in full so that responsibility for false reports might be readily placed.

This inspection was finished August 10. The greatest care was taken to insure accuracy and I am reasonably certain that no false reports are on record among the papers of this committee. Reinspection of houses selected at hap-hazard was constantly carried on with a view to detection of carelessness or corruption on the part of the inspectors. Thus the committee was safeguarded against both.

Simultaneous with the beginning of this inspection, the second corps was set to work on an examination of the construction and sanitary condition of the same houses. Like provisions were made to insure the accuracy and honesty of this corps.

The printed questions for this inspection were as follows:

Date of visit.

Street and number.

How many stories in this house?

What is its age?

What is the material of its construction?

What is its general condition as to dilapidation?

What is the sanitary condition of its halls as to cleanliness?

What is the general condition of its halls as to light (day and night) and ventilation?

What is the number and location of its water-closets and school sinks?

What is their condition?

What business is conducted on the premises, if any, and in what part of the building?

What is the size of the yard?

What are the conditions as to cleanliness and ventilation of the cellar of this house and what is it used for?

What is the floor material of this cellar?

How is this cellar ventilated?

Is the name of the owner or agent posted anywhere in this building?

What is the name of the owner or agent?

Is the front door left unlocked at all times?

Are the fire-escapes in good order and free from obstructions?

Following this came a space for remarks and for the agent's name.

This inspection ended somewhat in advance of the inspection of families.

While these two inspections were in progress a third was looking into the condition of cellars ordered vacated as living apartments by the board of health. This investigation was chiefly valuable in adding to the committee's general knowledge of tenement-house conditions, but its tabulated results are not of enough importance to warrant their consideration by your body. A gratifying result of the examination was establishment of the fact that the health board's orders had been very generally obeyed.

THE ENTIRE CITY INSPECTED.

It at once became evident that there were many dilapidated and unsanitary tenement-houses in New York city, which were not included in the health board list of 2,425 houses. At the direction of your body, I then began an inspection which was calculated to seek out every improper tenement-house in the city of New York. I divided the city up into districts and instructed four experienced inspectors to report the street and number of every house, not already included in the health board's list, which, from a cursory examination, they deemed to be an improper place for human beings to live in, whether from dilapidation or unsanitary construction of the structure, defective plumbing, lack of fire-escapes, unsanitary surroundings or other causes.

The result of this labor was the preparation of a list of 6,809 houses, for which a new list of questions was immediately

prepared. In the limited time then before the committee, and with the limited means at its disposal, it would have been impossible for it to make as complete an inspection of these houses as had been made of the original 2,425. One corps of inspectors only was detailed for this work and no separate examination was made of families as distinguished from the houses in which they lived.

It was the desire of the committee to obtain, by means of this examination, complete knowledge of the number and exact condition of the notably bad tenement-houses only, and the inspectors were instructed to omit reports upon any houses which they found to be in so good a condition that they could not justly be so classed. They were also instructed to deliver to me every night a list of such good houses as they had stricken from their roll during the day and such reinspection was made of these houses as to satisfy me that the returns made were fair and intelligent. Great care was also exercised in preventing the return of any house as being in a worse condition than that in which our inspectors really found it.

The printed questions given to the fourth corps of inspectors covered the following points:

Date of visit.

Street and number.

Stories in house.

Age of house.

Material of construction.

General condition as to construction.

Sanitary condition of halls as to cleanliness.

Manner of lighting halls day and night.

Ventilation of halls.

Number and location of water-closets and school sinks.

Condition of closets.

Business conducted, if any, and where.

Sanitary condition of business premises.

Size and condition of yard.

Cleanliness, condition, etc., of cellar.

Floor material of cellar.

Manner of ventilating cellar.

Name of owner or agent.

Is the front door open at all times ?

Condition of fire escapes, as to construction and obstruction.

General condition of apartments as to cleanliness.

Number of rooms in each apartment.

Location of water supply — yard — halls — apartments.

Its relation to the reasonable requirements of the house.

Number of apartments in this house.

Number occupied.

Population over 16 — male ; female

Population under 16 — male ; female.

Nationality.

Average rental.

Number of rooms in each apartment without direct light.

Ventilation of apartments — good — fair — bad.

Sanitary defects as to plumbing and drainage.

Sanitary surroundings good or bad. (Details.)

The sources of bad odors, if any exist.

Any apartment used for immoral purposes.

Whether the house was originally built for tenement purposes.

A space was left at the bottom of the report for remarks and the inspector was required to sign his name in full.

RANK AND FILE OF THE WORKERS.

The committee from the beginning worked under a serious handicap in carrying on these investigations. The task was such a vast one, and the necessity for absolute accuracy so great, that at first it seemed impossible to execute it without the employment of skilled examiners. There did not exist in New York city, however, any large number of men having expert knowledge of such work, so it became my duty to select men of high intelligence to be trained in the task. The health board gave valuable assistance in this training.

The basis of the committee's corps of inspectors was formed by the selection of the best of those who had been employed by the Church Temperance Society (whose investigation had just ended) and to these were added from time to time college men who were willing to work through the summer vacation — and among these were several accomplished sanitationists and engineers — one or two professional men and several very intelligent laymen. Nine women were also employed for a time. The selection was made most carefully and no similar work was ever executed with a higher average of intelligence among the rank and file of its workers.

The especial thanks of the committee are due, for faithful and unselfish work, to inspectors J. M. Brody, B. S., C. E.; Henry M. Leverich, Meyer Joffe, B. S., C. E.; Julius Cohen, B. S., C. E.; and George M. Price, M. D.

The results of these investigations show:

NECESSITY OF REGULAR INSPECTION.

1. The danger which arises from neglect of the semi-annual inspection of tenement-houses required of the health board by law. Omitting from the technical tenement-houses, such flats and apartment-houses as do not properly come within the province of the semi-annual inspection, it is proper to say that almost no houses which do not contain defects of construction, plumbing or drainage in direct violation of the sanitary or building code can be found. I have, myself, inspected probably 100 of the better class of houses, with the idea of proving this untrue, but I have, as yet, found no house to be perfect in every respect. This being true of practically every tenement-house in New York, and your committee's examinations having shown that 3,984 tenement buildings are in such bad condition as to be practically unfit for human habitation, the vital importance of carrying out regularly and thoroughly the health board's semi-annual inspections is apparent at a glance. The health board, as it is at present supplied with inspectors and sanitary police, has not a sufficient force with which to accomplish this work. Your committee's recommendation that the health board's inspection staff be increased is, therefore, fully supported by the results of this examination. Not one of the sanitary laws is more important than that calling for a semi-annual inspection of tenement-houses.

WHITEWASHING.

2. The law most frequently violated is that requiring a semi-annual whitewashing of all halls and apartments of tenement-house buildings. Whitewash is a purifier and disinfectant and its free use should be exacted by the board of health.

MATTING AND CARPETING.

3. The theory that in many of the better class of tenement-houses the presence of matting or cheap carpeting upon the floors of the hallways, while perhaps it adds somewhat to their appearance of comfort is, in reality, a menace to the health of the inmates, is fully confirmed. This matting or carpeting has been found, in many instances, to be soaked with moisture and filled with dirt, and must be a medium for the culture and spread of disease germs. It could not be readily cleaned and indeed no effort is made to clean it. The use of matting or carpet in tenement-house hallways should be prohibited by law.

WALL PAPER.

4. Conclusive proof that the presence of paper on the walls of tenement-houses should be discouraged if not prohibited, has been developed by this investigation. Instances innumerable have been found where wall paper literally black with filth and rotten with age can not be other than a menace to the health and lives of the inmates of the buildings. Torn wall paper also affords convenient lodging places in its loose places for vermin. But more important than these objections is the fact, upon which expert sanitationists agree, that the porous nature of wall paper offers an opportunity for the retention of the germs of contagion, which should not be disregarded. This is often increased by the super-imposition of one layer upon another until the walls are covered by a spongy mass, whose minute crevices and pores offer perfect lodgment to microbes and all manner of dangerous germs.

PLUMBING.

5. In a large proportion of the houses reported by the inspectors of your committee as being in improper condition, it has been found that defects exist in the plumbing. At present the inspection of plans for plumbing of new buildings is a part of the duties of the building department, having been transferred thereto from the health department in 1888. In the opinion of many experts this was a mistake. The inspection of all plumbing plans should, in my opinion, be returned to the board of health. I do not wish to intimate that the building department has been shown to have exercised other than the most scrupulous and intelligent care in the inspection of plumbing plans. It would seem to your secretary, however, that plumbing, being a sanitary matter, should be placed in charge of that department in which is to be found the more expert sanitary knowledge. It must be admitted, however, that some inconvenience would be entailed upon builders were they compelled to file plumbing plans with the health department, while all other plans were filed with the building department. It seems reasonable to believe, however, that this disadvantage might be adjusted.

INSPECTION OF BUILDINGS.

6. I would respectfully suggest a more comprehensive inspection of tenements by the building department, or by someone competent to report on defective construction and dilapidation to that department. As will be seen in the summary of the

committee's inspection, dilapidation often amounting to a dangerous condition exists in a startlingly large number of houses. This should receive careful official attention.

PROSTITUTION.

7. The presence of many immoral women in the tenement-houses, where they are thrown in contact with respectable people, and, worse than that, with large numbers of ignorant and innocent children, forms a most deplorable condition. There has been a manifest increase in this condition during the past year or 18 months, and there is no doubt that the influx of prostitutes into actual residence in tenement-houses is due to the police raids, which have closed most of the houses of ill-fame in the tenement-house districts. Under the old order of things, no matter what its evils may have been, the immoral women occupied houses by themselves. At present they form a part of the life of the great tenement-houses, and thus their contaminating influence is felt far more directly by the general public than was formerly the case. The tenements always have had, and probably always will have, their share of immoral women — of a class peculiar to them and separate from the professional prostitutes driven of late into them, from houses of ill-fame. Most of this tenement class consists of women who have been abandoned by their husbands, and who, in order to support themselves and their legitimate children, are driven to depend to some extent upon evil sources of income. Such abandonment is distressingly common among certain foreign nationalities. Probably 50 cases have been brought to your secretary's attention. These women, however, generally work when they can, and turn to prostitution only as a last resource. They are surrounded by none of the glamor of the professional prostitute; do not ordinarily live or dress more elaborately than other inmates of the house in which they live, and are generally regarded with more pity than envy or resentment by their neighbors and their neighbors' children. Thus they are not so especially dangerous to the morals of the house. But an apartment full of such prostitutes as have now been driven into the tenements, where they are surrounded by comparative luxury, and live lives of apparent ease, in the midst of a houseful of adults and children whose frugal, honest living is obtained only by the hardest of work and the most rigid economy, can scarcely be less dangerous to the moral health of the house than an apartment full of cholera-infected persons

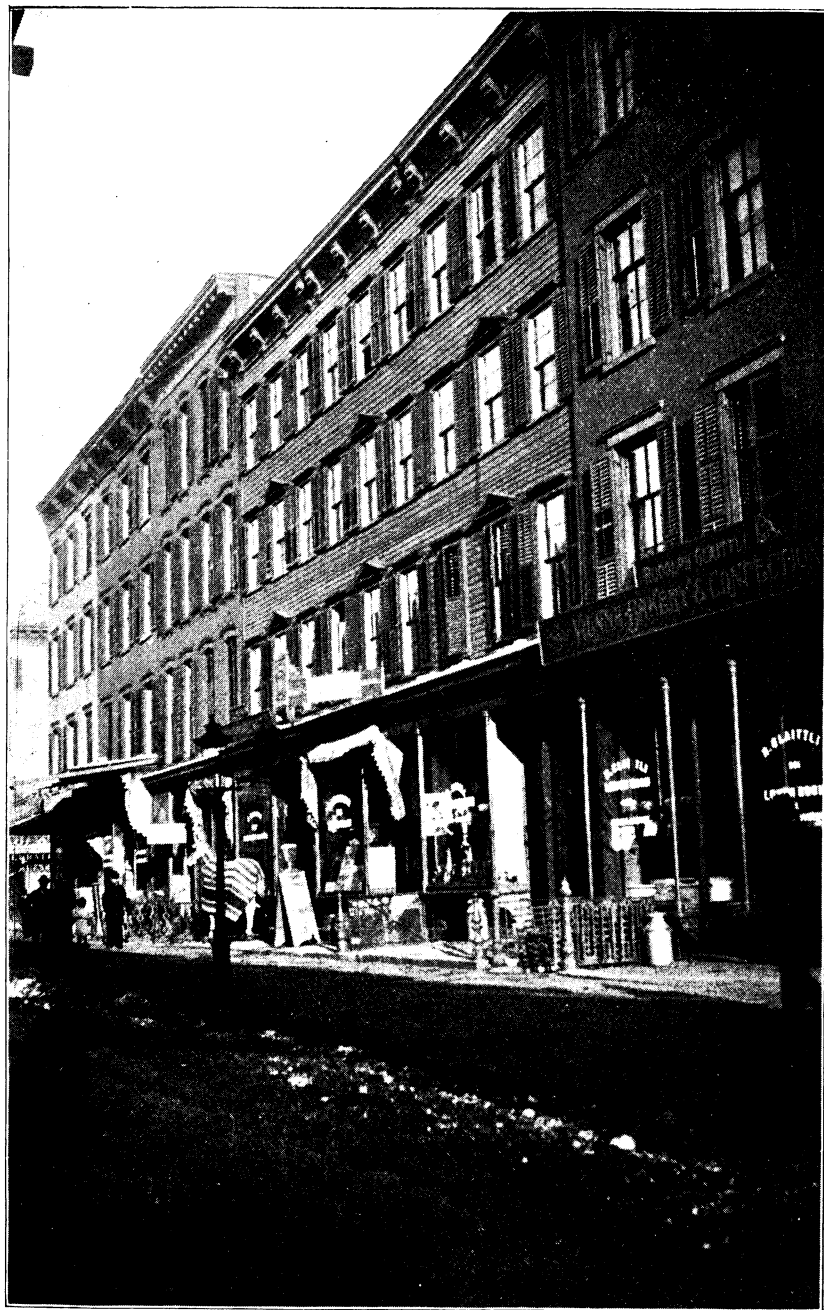


FIG. 1.— No. 903 Third avenue, front. — No fire escape front or rear.

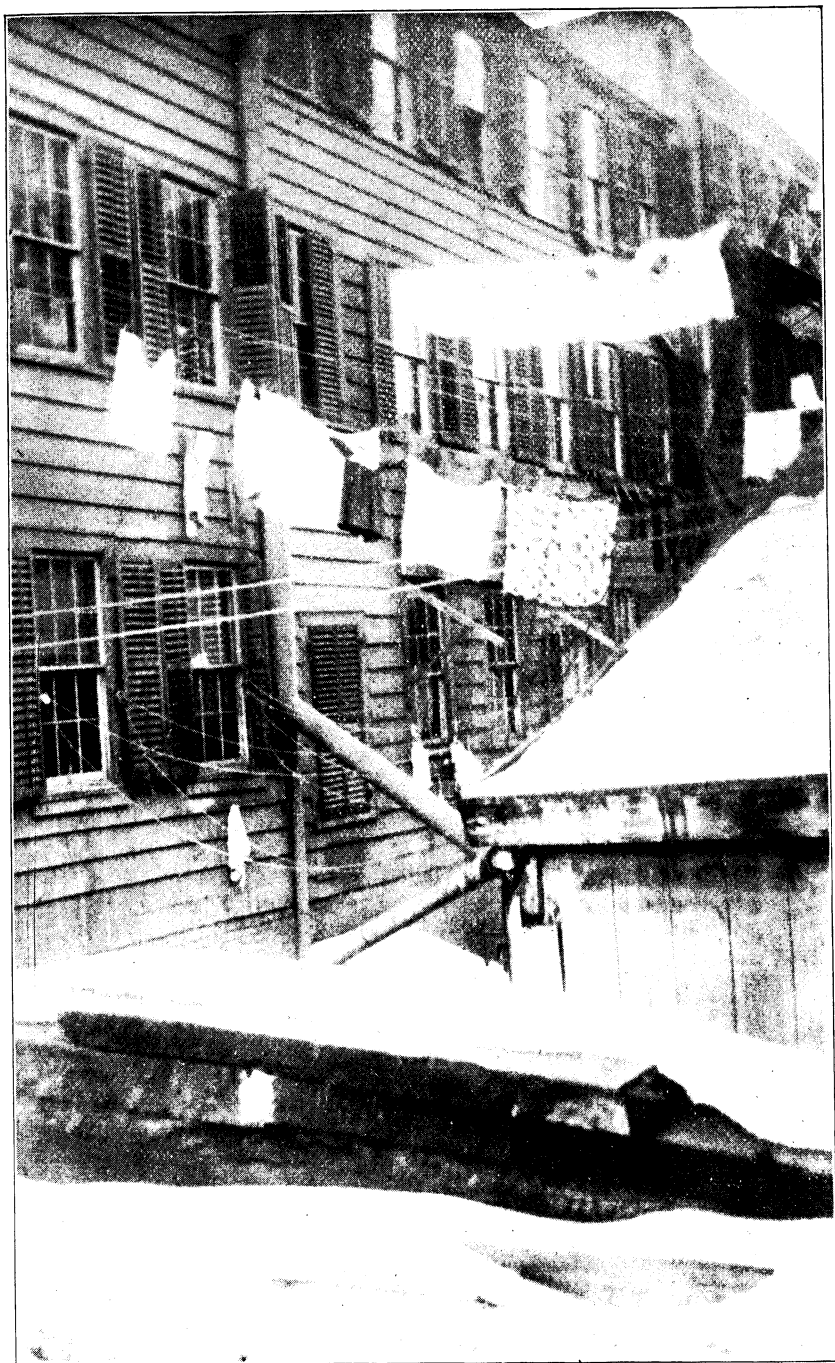


FIG. 2.—No. 903 Third avenue, rear.—No fire escape front or rear.



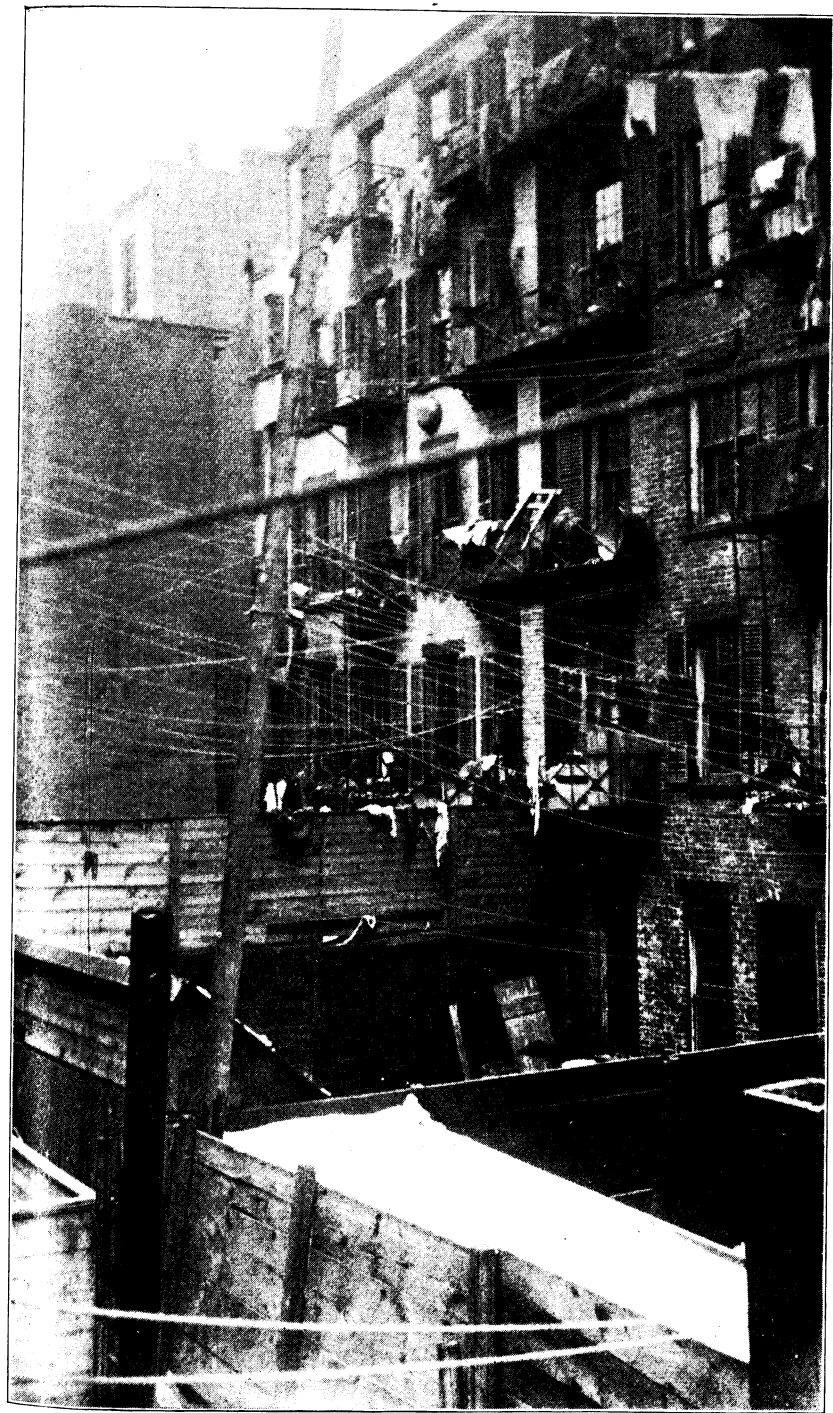


FIG. 3.— Nos. 20-22 Ludlow street.— Obstructed fire escapes.

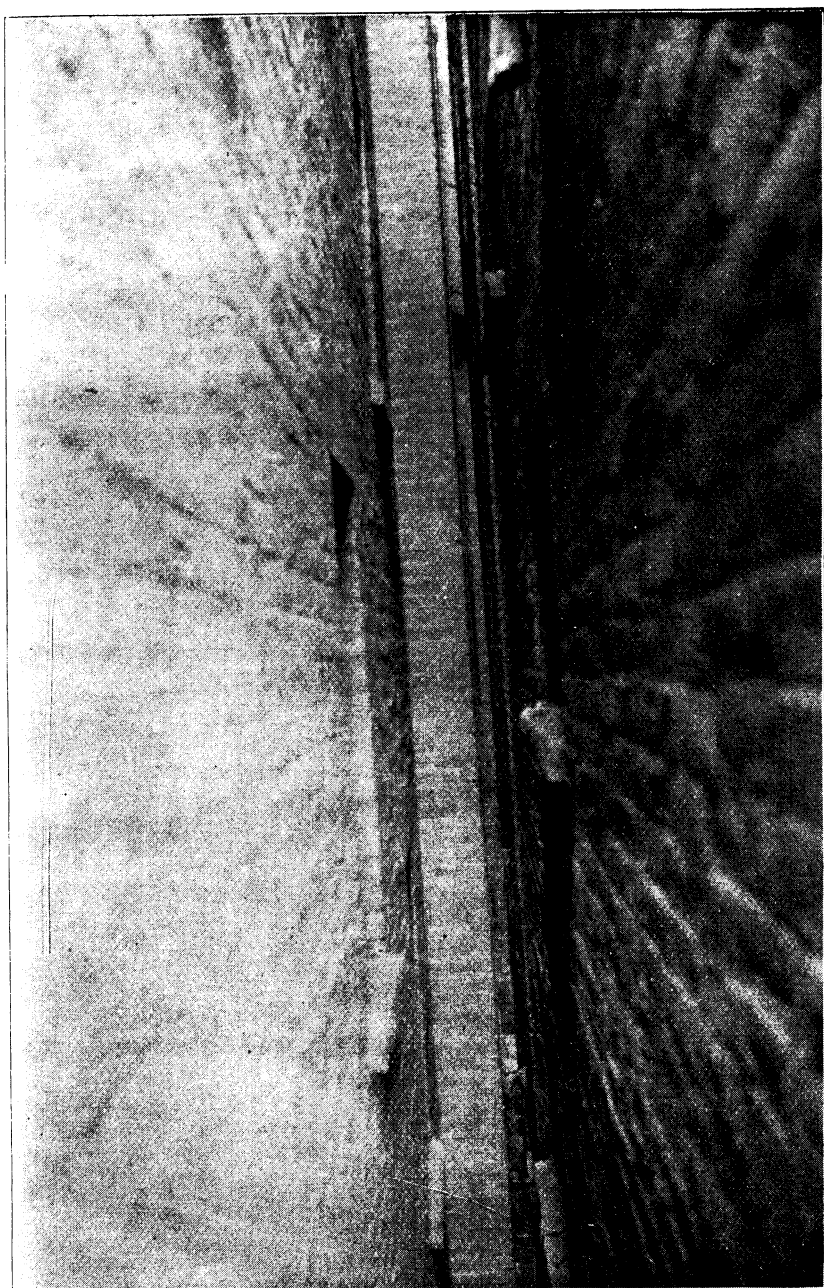


FIG 4. Unoccupied area in rear line of block, Canal, Forsyth, Bayard and Chrystie streets.

would be to its physical welfare. The suppression or regulation of prostitution is a matter of such great import and complexity that suggestions concerning it as a whole should not be made without such careful research as a commission especially appointed for that purpose might make; yet the condition existing in the tenements to-day is so perilous that it might well be made the subject of immediate action. I would suggest the passage and strict enforcement of a law providing especially severe penalties for the maintenance of places of prostitution in buildings occupied by three or more families, and making it a part of the duties of all inspectors of the health department (as they came in closer contact with the actual life of the tenements than anyone else) to search for and report such cases to the proper authorities.

It is proper to explain why the summaries of this inspection do not bear out any general statement of an influx of prostitutes into the tenement-house districts. Less than 100 apartments devoted to purposes of prostitution are reported out of a total of 3,948 houses investigated; but it must be remembered that the houses of which I have transmitted reports to you are the worst in the city. The prostitute, being comparatively prosperous, rarely rents an apartment in such a house. Her field is in the tenement of the middle and best class, and thus the population with which she is thrown in contact is of even greater importance to the community at large than that occupying the houses with which this inspection directly has to do.

FIRE ESCAPES.

8. I wish to call particular attention to the result of the committee's investigations of fire escapes. It will be seen that a large number of houses are reported as being entirely without fire escapes, and that another large number of buildings is reported as having an insufficient number. The latter reports mean that there are apartments in the houses which have no direct communication with the iron fire escapes, and that in case of fire, their inmates would have difficulty in reaching the means of egress provided. The testimony of officials of the fire department at the public hearings of your committee showed that the hall and stairways of non-fireproof tenement-houses are generally the parts of the buildings first to be rendered dangerous by flame and smoke. This being the case it seems unwise to force the occupants of any part of a

tenement-house building to pass through the halls to other apartments before they can gain access to the fire escape. I would respectfully suggest that it should be rendered obligatory upon the owners of tenement-houses to provide fire escapes which connect directly with one or more windows of each apartment. It will also be observed that a very large number of tenement-houses are reported as being entirely without fire-escape accommodations. The law as it stands at present calls for escapes on each tenement-house wherein three or more families live above the ground floor. This omits from the operation of the Fire-escape Law many buildings which are quite as dangerous to human life as they would be if they were higher and occupied by a greater number of tenants. A building may be occupied by only two families above the ground floor, and yet those two families may be in danger quite as deplorable as would threaten five families if they occupied the same space. I do not see the logic in omitting to require safeguards, simply because a dangerous habitation is occupied by only two families above the ground floor. Furthermore it should be noted that most of the houses which are occupied by only two families above the ground floor are of ancient construction and often built entirely of wood. Thus the houses which are exempt from the provisions of the Fire-escape Law as it stands at present, are really the most inflammable structures in the city of New York. I would respectfully recommend, therefore, the passage of a law requiring fire-escapes to connect directly with every apartment in every tenement-house in the city of New York and to be, invariably, supplied with ladders.

In addition to the fire-escape statistics reported in the regular examinations, a separate study shows 42 violations of the law, leaving 177 families unprotected, out of 146 houses without fire-escapes. The remaining 104 houses, although they do not come under the law as it exists to-day, contain 386 families. This, in a measure, shows how large a number of persons are constantly exposed to the danger of death by fire, because of the lack of a provision such as I have outlined. Among the last statements which Battalion Chief Bresnan made to your committee, was a recommendation of this character. The heads of the fire department, without exception, are in favor of the passage of a law requiring fire-escapes on all tenement-houses. Figures 1 and 2, which accompany this report, give a very good idea of some of the flagrant violations of the law now existing in this city. They show a four-story tenement-house wholly without fire-escapes. Figure 3 shows a case of obstructed fire-escapes. The department of buildings is now

pressing 441 cases against owners of tenement-houses not provided with fire-escapes according to law, and during the past year 1,283 cases have been forwarded to its attorney for prosecution.

The obstruction of fire escapes offers a problem difficult of solution. It prevails to a serious degree, and the danger resulting from it is great. The fire at 129 Suffolk street, of which I made a special investigation at your direction, resulted in the loss of one life which could easily have been saved had it not been for the presence of washtubs and other impediments on the fire escapes. Living in tiny apartments, crowded by both human beings and furniture, it is not surprising that dwellers in the tenement-house districts are prone to relieve the congestion of their rooms by packing articles, not in actual use, on the convenient iron balconies. They can not understand and can not be made to understand that they thus endanger their own lives and those of others. At present the only effort made to prevent obstruction of fire escapes is the inspection by the firemen. This must, because of the nature of a fireman's duties and especially because of the necessity for constantly keeping men enough in the stations to handle the apparatus in case of an alarm, be only casual and far from thorough. Inspection by the police is a dead-letter. Thus it has become not at all an unusual sight to see fire escape balconies not only temporarily clogged by household furniture and the general superfluities of the house, but to see them rendered permanently useless by the presence of heavy packing cases and other objects too cumbersome to be moved at all in time of hurried danger. I would respectfully recommend that the facilities of the fire department for inspection of fire escapes be increased, and that police patrolmen be required to report on the condition of fire escapes on their respective beats, daily at the station-houses; their reports to be promptly transmitted to the fire department. If this were done patrolmen should be instructed to visit the yards back of tenements and courts between front and rear tenements, for the purpose of learning the condition of fire escapes not visible from the street.

OLD BUILDINGS.

9. Your report on the death-rate in New York city shows that one of the most important elements which go to make it high is the presence of old and dilapidated buildings. This inspection shows that there are many houses in the city in an unsanitary condition which absolutely unfits them for habitation by

human beings. Thus your committee's call for a law by which the board of health can take action looking to the final destruction of such structures is abundantly justified. The Building Department at present has power to destroy buildings which are deemed likely to fall, but the health department can only order the vacation of building so infected with contagion or so unsanitary in other ways that they menace not only the lives of their occupants but those of the inhabitants of surrounding buildings. This is a municipal inconsistency.

LACK OF VENTILATION.

10. The number of buildings now existing which were constructed prior to the passage of the new laws calling for air and light in each apartment and for well-ventilated halls, is to the number of buildings constructed under the new law about as 20 to 1. Thus the board of health is confronted by a large number of buildings of which the owners can not be forced to meet the requirements of the present sanitary laws, and which, by reason of their defective construction, are dangerous to life and health. One of the chief sources of this danger is the lack of ventilation to which I have just referred. I would respectfully suggest that additional powers be given to the board of health with a view to securing the proper ventilation of halls and apartments through the cutting of windows in the walls of the building itself, or through the removal of obstructions, such as walls, fences or other buildings which may exist on adjoining lots. This frequently could not be done without condemnation and reimbursements. Authority to this effect should, therefore, be added to the health board's powers.

LIGHT IN HALLWAYS.

11. Reference to the summarized figures of this investigation will show that in many of the houses examined the hallways are improperly lighted. This, according to the testimony of every expert of whom I have knowledge and according to the statements of the committee's own inspectors, is a fruitful source of immorality, ill health and accidents to life and limb. It is the custom in the majority of these houses to burn one gas jet or oil lamp in the hallways from dusk till 10 p. m. Provision is rarely made, however, for the lighting of dark hallways during the daytime, although many of the hallways are as dark at noon as they could be at midnight. A special investigation of the accidents which

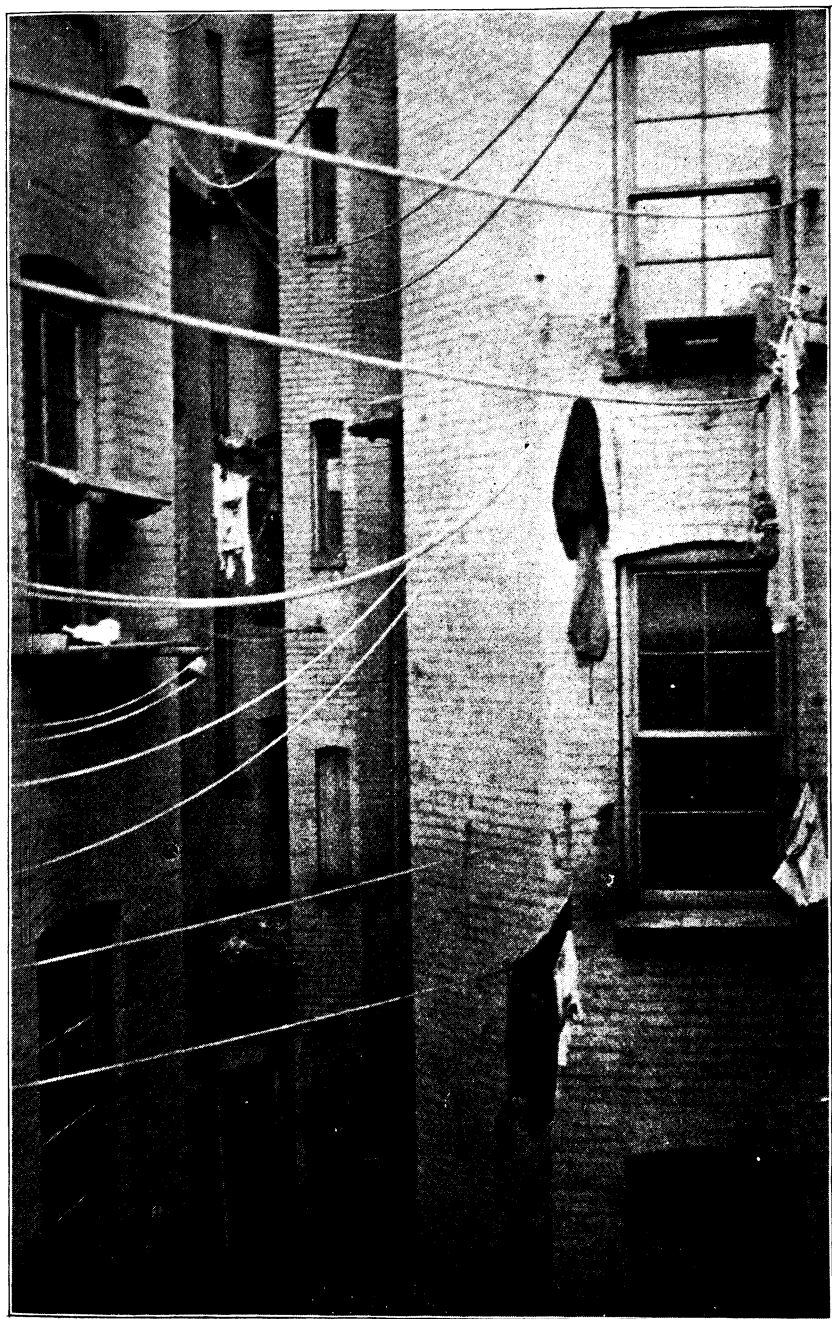


FIG. 5. Showing open area at 34 Laight street.



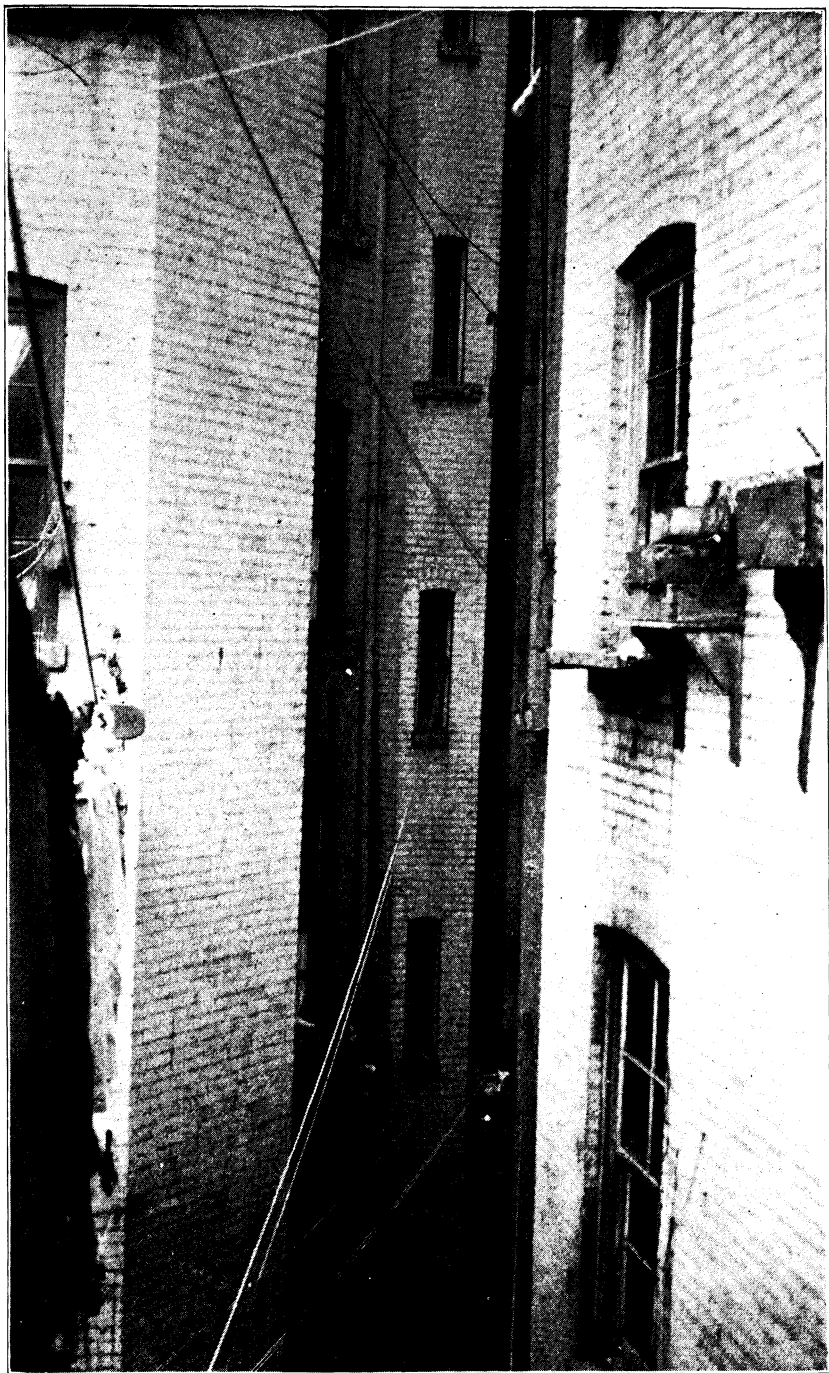


FIG. 6. Showing open area at 13 Vestry street (continuous with 34 Laight street).

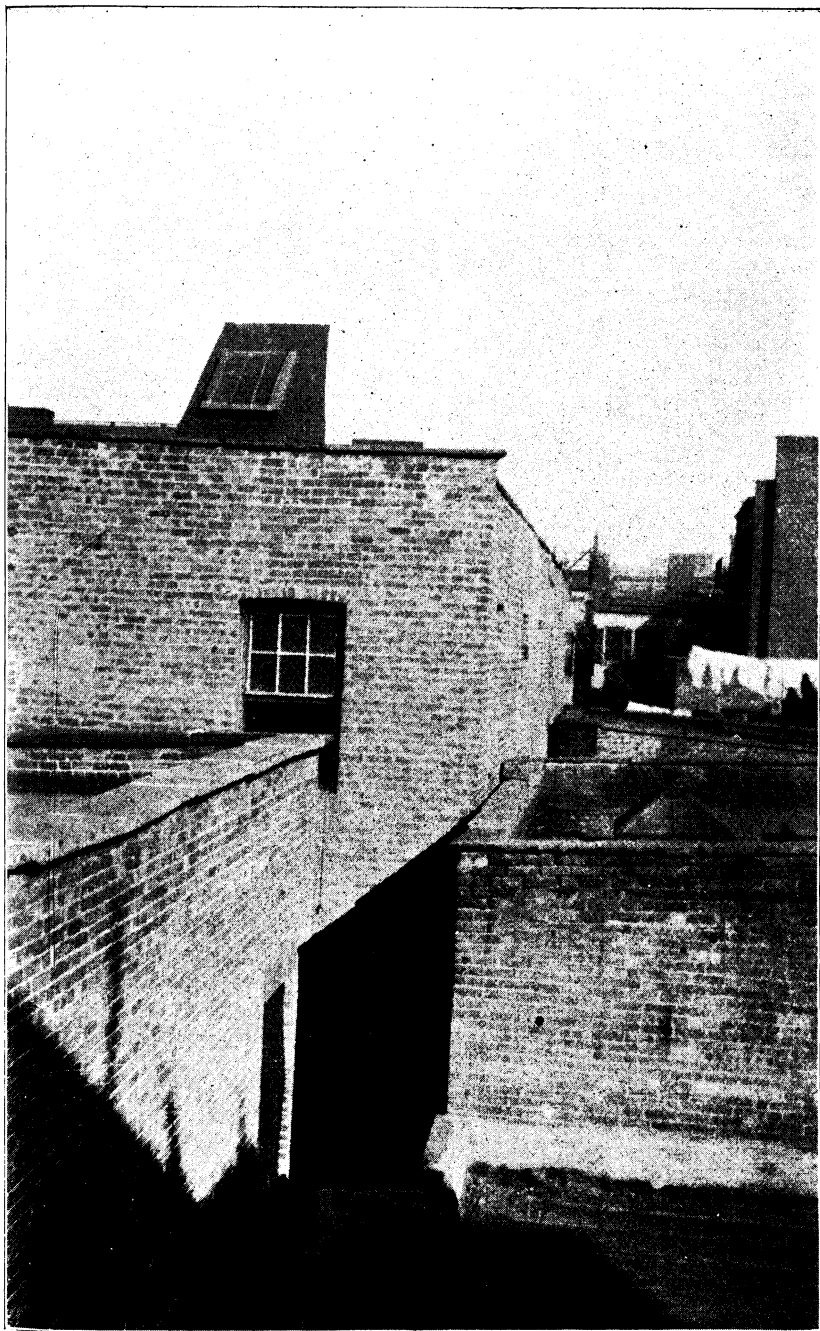


FIG. 7. Showing rear line of Rivington, Ridge, Delancy and Attorney streets, in which rear houses come together.



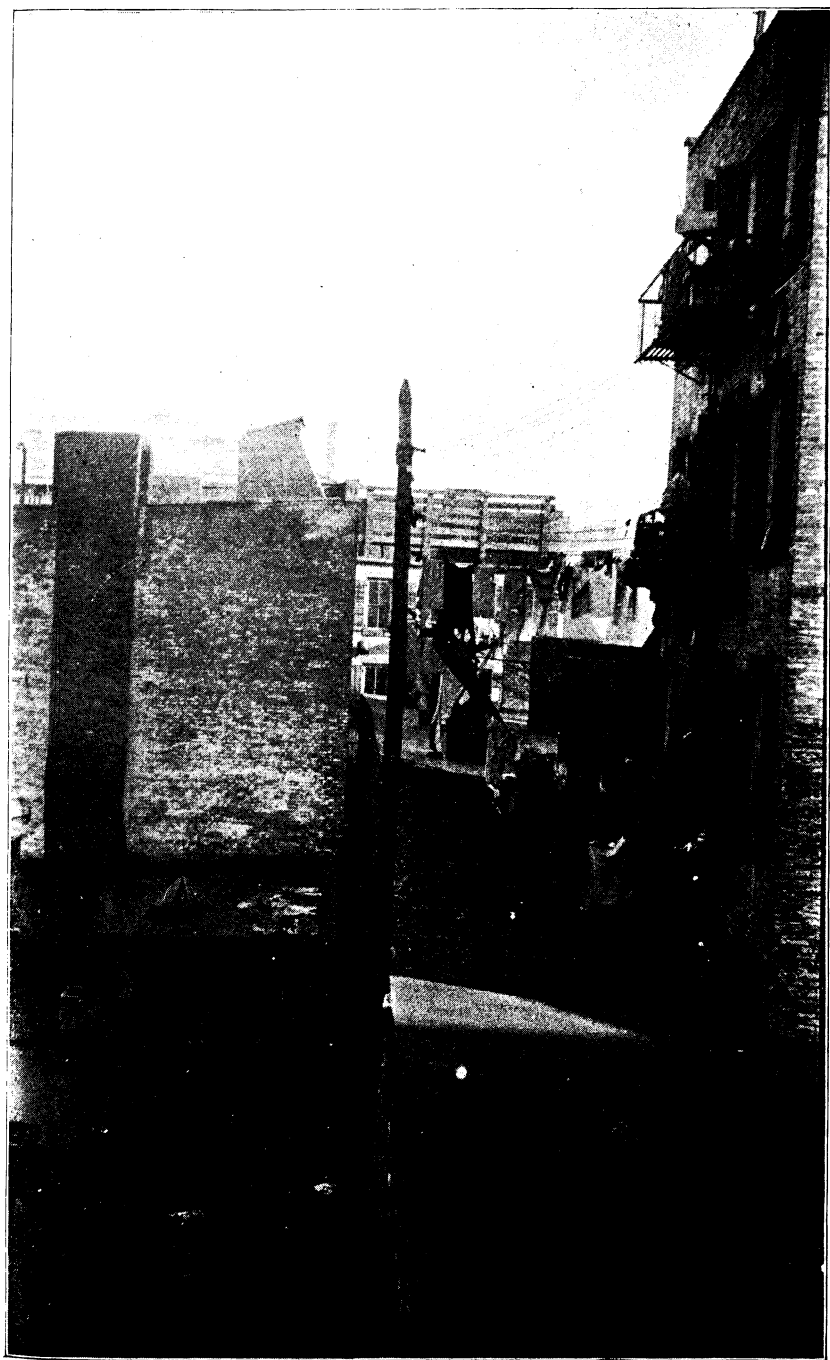


FIG. 8. Showing rear line of block, Mulberry, Bayard Mott and Park streets — space, 18 inches.

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have been caused by dark hallways has been made by one of the committee's inspectors and the results obtained by this study alone, I think, are sufficient to warrant the recommendation of a law demanding that artificial light should be burned during the daytime in dark tenement-house hallways. It is known that many persons are annually injured by falling down stairways and otherwise suffering accidents for no other reason than that the hallways are improperly lighted. Unfortunately the hospitals of New York keep no record of the first causes of accidents, so I am unable to present a definite statement on this subject. The widow of a man killed by stumbling in a dark hallway testified before your committee.

Another reason for the lighting of halls is purely sanitary. The experience of at least one careful student has shown that the admission of light into a dark hallway, which was in a deplorable state of dirt and filth, was sufficient, without further suggestion, to induce the tenants to properly clean the hallway. This instance is described in detail in the report (Supplement No. 2) on Miss Ellen Collins' model houses on Cherry street. Dirt which can not be seen is not likely to be taken heed of. Dirt which is visible is a constant reproach to the tenants, as well as to the landlord of the house, and is unlikely to be long neglected. It may further be stated in this connection that one of the greatest menaces to health in the tenement-house, as it exists to-day, is the saturation of the walls, floors and everything else in the neighborhood of hallway sinks with Croton water and slops. It is thus that sinks in tenement-houses become centers of unhealthful influence. In almost every case this condition can be traced to the lack of light in the hallways. A woman going to the sink to fill her pail with water or to empty into it refuse water, is doubly likely to spill the contents of her pail if the hall be so dark as to force her to wholly or partially feel her way. And the very lack of light, which originally caused this mishap, is certain to aggravate its results. If the hall is dark, having spilled the water or slops, she is unable to see what she has done, and, therefore, does not attempt to remedy it. Light in the hallways would not only in most cases prevent her from wetting the floors of the hallways, but would, in case she did accidentally do so, generally induce her to clean up the mess before she left the hall. It is true also that tenants throw refuse of improper character—such as bedroom water and human excreta—into the sinks of dark hallways more frequently than into sinks in well-lighted hallways. Where darkness makes identification of such an offender improbable, a person inclined

to this kind of slovenliness has almost no reason for refraining from carrying out his vile impulse. More than a hundred sinks used for such improper and dangerous purposes were discovered by this examination, and it is generally known to the health board and your committee's examiners that the use of sinks in dark hallways as urinals, is by no means infrequent. These things can not, of course, fail to threaten the health of the house in which they occur. The moral argument calling for light in the hallways of tenement-houses is a strong one. In the heterogeneous population of a large tenement-house it is frequently true that young boys and girls receive first lessons in evil doings in dark hallways which they would entirely escape were their actions, while passing through or pausing in the hallways, open to the view of the other tenants in the house. The impressions of the committee's examiners confirm those of such students as Mr. Jacob A. Riis and others on this point.

Thus this examination offers the strongest of evidence in favor of your committee's recommendation that the hallways of all tenement-houses be adequately lighted between the hours of 6 a. m. and 10 p. m.

SANITARY POLICE.

12. The selection of sanitary police should be made from men of a high standard of intelligence and honesty. Throughout the tenement-house districts it is the common report that there are among the police inspectors of the health department men who fail to report violations of the sanitary code, because they are in the pay of the landlords. It is unlikely that this condition is as bad as it is said to be, and it is unquestionably true that the health department has taken every possible precaution under the present law to prevent corruption of this kind. It is, nevertheless, a fact that during the course of this inspection I have learned of several cases of attempted bribery, which have been promptly reported to the proper officials, who have taken appropriate action. It should be said in favor of these offenders that they are subject to greater temptation to commit this kind of wrong than men in like positions are in any other city in the world. I make this assertion because of the experience of your committee's own inspectors. In fact my experience with your committee's corps teaches me that probably 100 bribes are offered where one is taken. It seems to have been the result of our political system that the public itself is even more partial to bribe-giving than the paid officials are to bribe-taking. Your committee's inspectors have frequently reported to me that bribes had been offered to them, and in each instance I have

confirmed the statement through personal investigation. As your inspectors were not sworn officers, either of the city or of the State, it was impossible, however, to take legal steps against those who tried to bribe them. It does not seem unreasonable, however, to require that such men as are transferred from the police department to the sanitary corps of the health department should be chosen because of their honesty, without regard to political favor, and that they should be subjected to a special civil service examination before such a transfer is made.

DARK ROOMS.

13. It will be seen by reference to the summary of this investigation that 71,015 persons out of the total of 121,323, live in apartments, one or more rooms of which are without direct light. Four-fifths of these apartments contain at least one room which is practically out of the reach of daylight altogether. I am informed that it was supposed that the present building laws would do away with the dark room. They do, indeed, provide for certain light and air shafts in each tenement-house, but these shafts are so small and the buildings are so high, that they become inoperative so far as light is concerned a few feet from the top of the houses. Dark bedrooms have all the dangers ascribed in paragraph 7 to dark hallways, besides others of their own. Darkness in bedrooms and kitchens hides the slovenliness of the slatternly housekeeper and increases the difficulties of such as are primarily inclined to be neat. The permanent absence of sunshine and direct light from any room in which human beings live has its effect on the health of the inmates. Dark rooms make homes in the tenement-houses gloomy and even less attractive than they might be, despite poverty, and thus, undoubtedly, have their untoward influence on family life. They help to make the tenement dweller's home unpleasant and thus increase the attractions of the street and the saloon by contrast. Their moral effect on children must be much the same as that of dark hallways, though more dangerous. This danger of moral contamination, it should be understood, is aggravated and increased by the crowding of the population of tenement-houses, and by its heterogeneous character. Were an apartment invariably occupied by only one family the peril would be greatly decreased, although it is my firm belief that the dark room has been responsible for many cases of incest. But when, as is frequently the case, an apartment offers sleeping accommodations to as many boarders, male and female, as can find room in it to stretch their bodies on the beds and floor, the moral peril into which the children — especially the young girls

—among the crowd, is dreadful to contemplate. It is probable, indeed, that the danger which would naturally exist at night, when the rooms are of course dark, is smaller than that which is likely to prevail in the daytime when the rooms ought to be light. At night all the occupants of the apartment are present and small opportunity for evil doing is offered. By day—the boarder—he may be some man without work, forced to idle his days away until he is able to find employment; such cases are all too common—not being seriously occupied, and being, perchance, of evil disposition, finds in the dark bedroom of the existing tenement-house just the gloom which is appropriate to his deed, and which makes its execution possible. One mother told me that her 13-year-old daughter had been ruined in a dark bedroom, while she—the mother—was unsuspectingly at work within 15 feet of the place in which the crime occurred. She added that the child, for more than a month, met her betrayer almost daily in this dark bedroom before the affair was discovered, although the mother was on each occasion busy in the adjoining kitchen. The betrayer was a strange boarder—one of the necessary evils of tenement-house poverty. A dark room can not ordinarily be well ventilated, even if the current of air which flows through the shaft be fairly active. If the shaft be too small to admit a reasonable amount of light it is not unfair to assume that it is too small to admit a reasonable amount of air; or, if the air-current be strong, there is danger that it may be laden with dampness or other impurities. When the shaft itself is improperly lighted, its bottom is certain to become the depository of rubbish and filth—the latter ranging from table refuse to human excreta—thrown from the windows, and thus a culture bed for impure germs is quickly formed, from which the upflowing air-current is calculated to draw dangerous microbes for distribution throughout the house. Thus, entirely aside from the unhappy part which such small shafts play as conductors of smoke and flame in case of fire, they utterly fail of the beneficent purposes for which they were intended. Lack of direct light in any room is a danger of itself and is certain to carry with it, lack of proper ventilation. Thus the dark room becomes one of the gravest evils which it is the province of your committee to correct.

WATER-CLOSETS AND SCHOOL SINKS.

14. The summarized results of this investigation show that a population amounting to 38,157 is affected by water-closets and school sinks reported as “very bad.” Most of these violations of the Sanitary Code consist of the omission of the bi-weekly

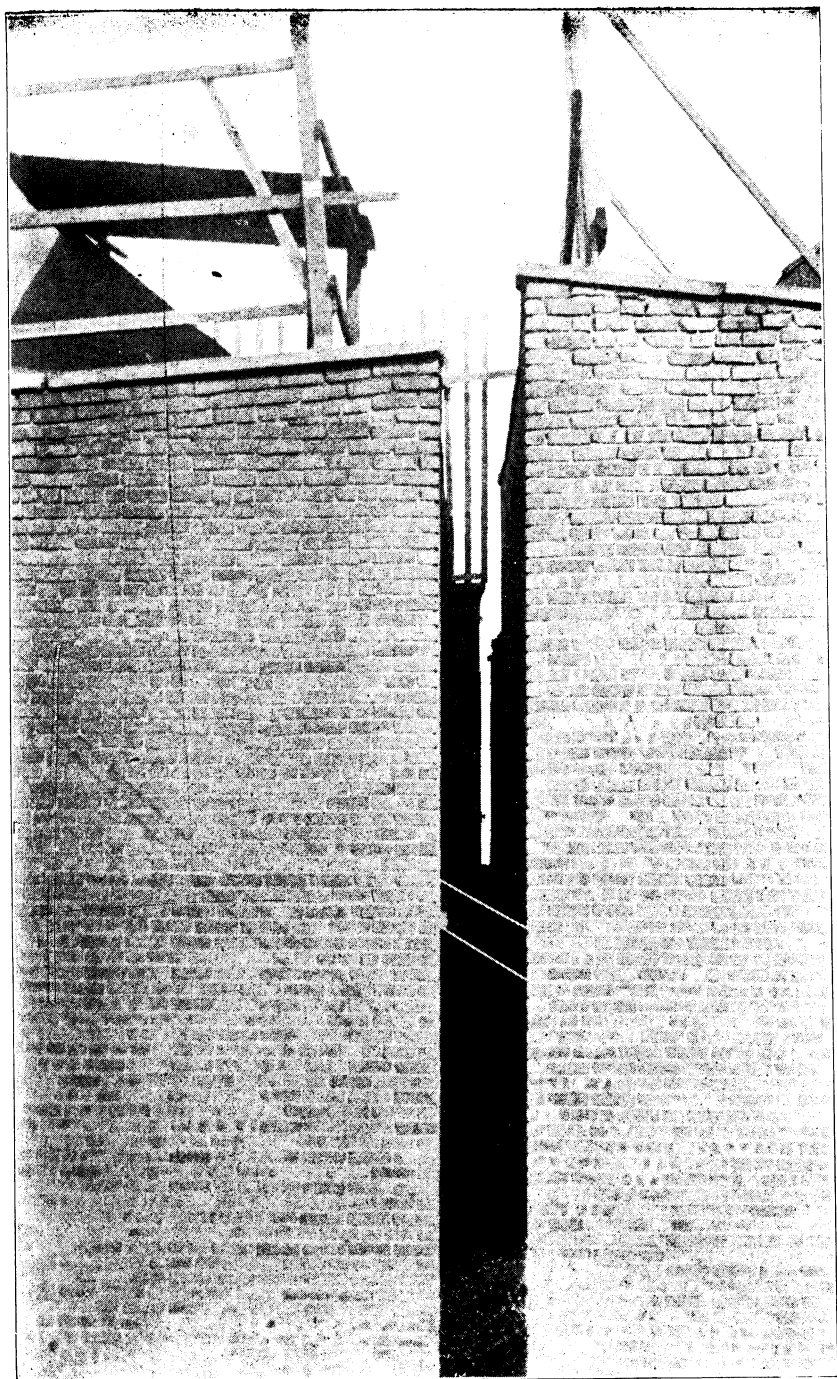


FIG 9. Showing rear line of block, Canal, Forsyth, Bayard and Chrystie streets — space, 18 inches.

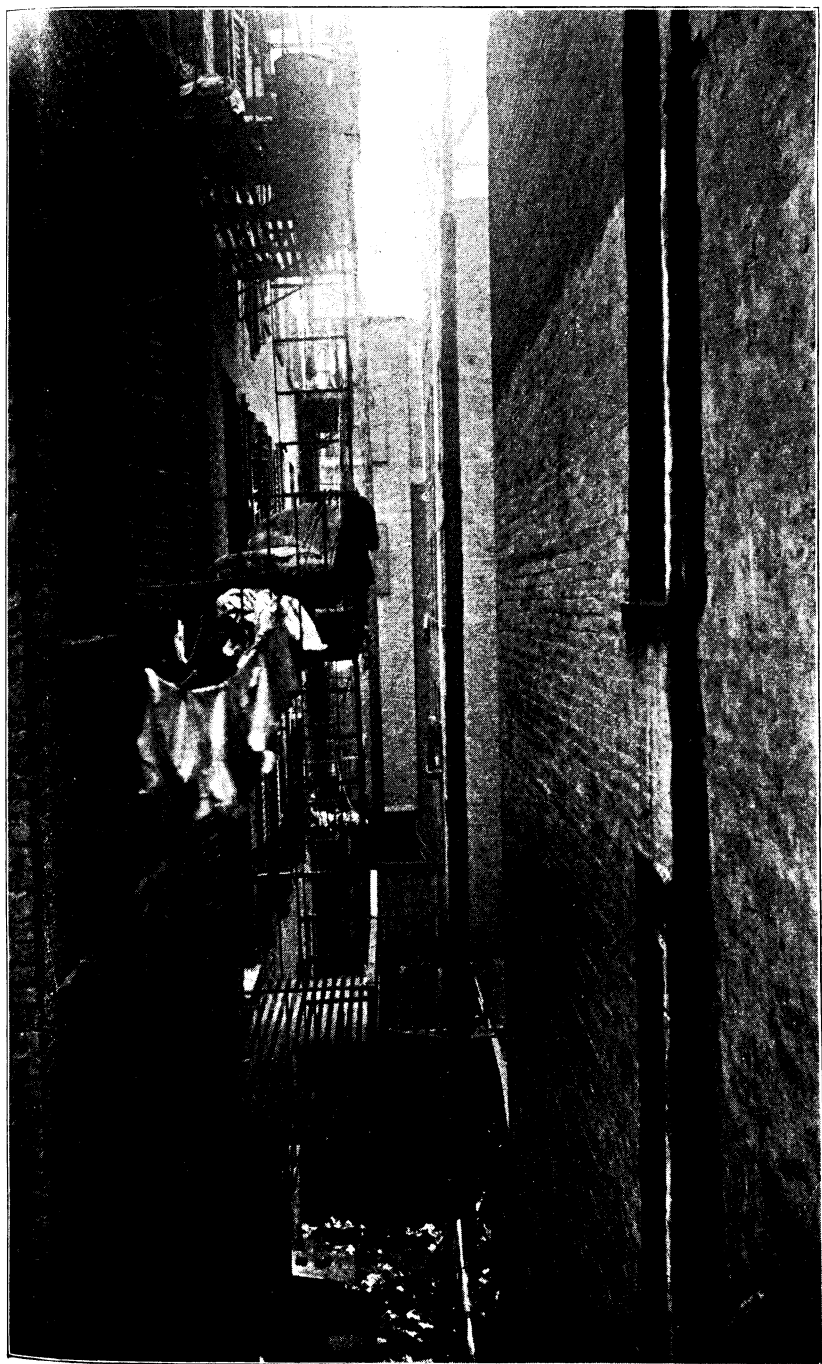


FIG. 10. Showing space (6 1-2 feet) between front and rear houses on Norfolk in the block, Hester, Norfolk, Division and Essex streets.

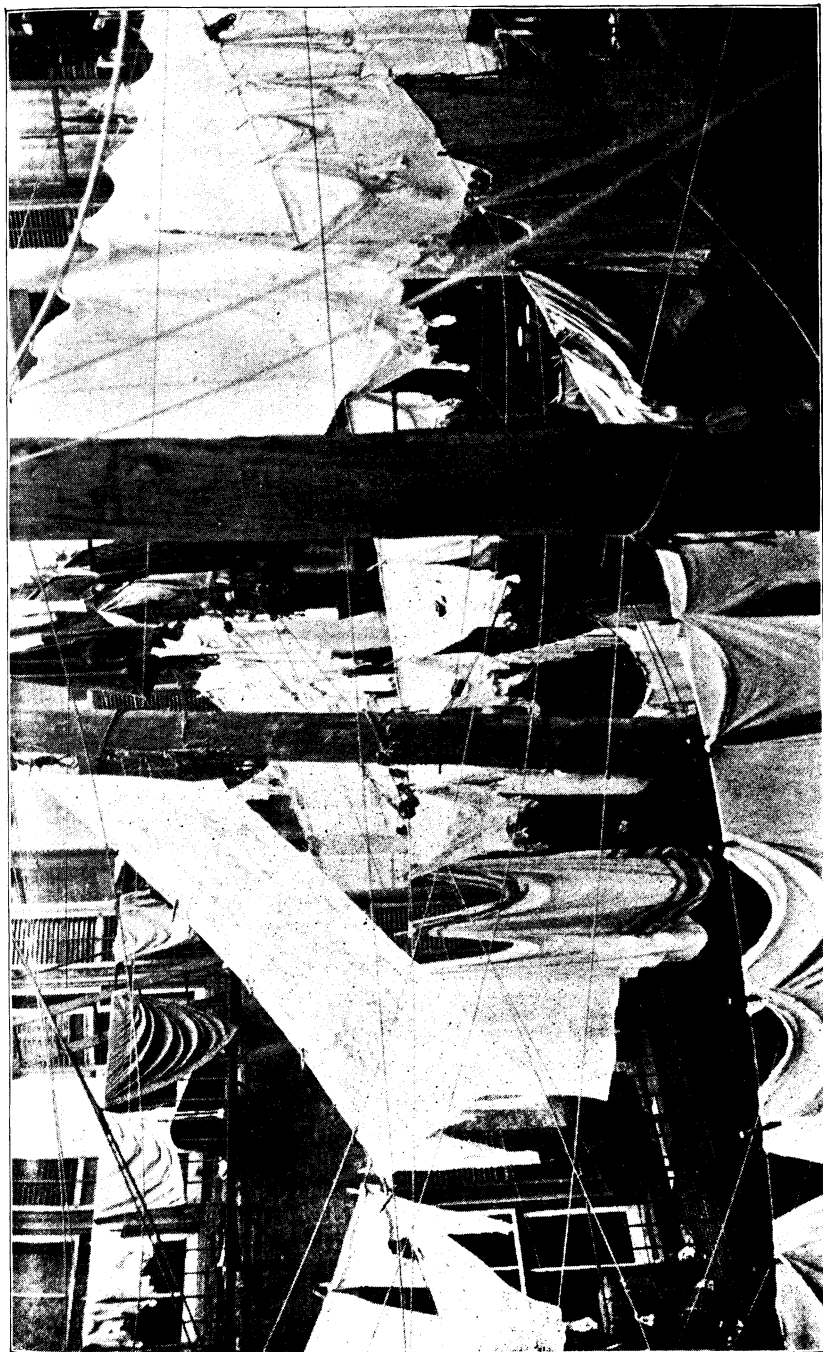


FIG. 11. Showing greatest open space in block, Canal, Orchard, Division and Allen streets (on wash-day).

flushing of school sinks, required by law. These omissions can be attributed almost entirely to the fact that the health board's staff is too small to properly inspect and report such matters, and, therefore, this is covered in paragraph 1 of my report. The dangers of such neglect are, however, deserving of especial mention. The discovery of water-closets and school sinks which from lack of care have been rendered totally unfit for use has been common throughout this inspection. In many all cleaning process has been so long omitted that foecal matter has been found piled high above the seats. Tenants then turn to other portions of the privy houses and the result is a condition of indelible filthiness, dangerous to the health and demoralizing to the habits of those brought in contact with it.

The necessity for the changes in the laws governing water-closets and school sinks, which your committee recommends, is plainly shown by this inspection. The wisdom of requiring water-proof, nonabsorbent floors to privy-houses is especially great. Wooden floors quickly become soaked with liquid filth and thus develop into rich fields for the germination of unhealthy influences.

CELLARS.

15. The especial attention of the board of health should be directed to the cellars of the tenement-houses reported by this inspection. Filth and neglect is the rule rather than the exception.

INCOME STATISTICS.

16. I desire to make a statement concerning the income figures reported in the inspection of the list of houses furnished to your committee by the board of health. Early in the work the inspectors informed me that they had little confidence in the accuracy of the figures which found a place on their reports, and I personally investigated the matter with great care. I found that misrepresentation in the answers to this question was the rule rather than the exception and that small reliance could be placed upon the returns obtained. In the interest of accuracy I then requested your committee to omit this question from the blanks given to inspectors in future and this was done. I have no doubt that the results of your committee's inquiries into this subject are as accurate as any results that have been or can be obtained in a hurried examination, but I am convinced from a study of the field that inmates of tenement-houses are opposed to telling the amount of their income at all and, if pressed, will lie about it in nine cases out of ten. I have little

faith in any figures of income obtained otherwise than through constant association and personal acquaintance with the people. Such figures as were given by Miss Adah S. Woolfalk, in her testimony before your committee, are probably approximately correct, as her statements covered only a comparatively small number of people with whom she had been in daily contact for months. I have no confidence, however, in the figures concerning incomes which I present to your committee, in the figures obtained by the Federal slum census, or in any figures resulting from a general house-to-house canvass.

BATHING FACILITIES.

17. The fact that out of the total population of 255,033 affected by this inspection, only 306 persons have access to bath-rooms in the houses in which they live, is the strongest possible argument in favor of your committee's demand for public bathhouses.

PERSONAL CLEANLINESS.

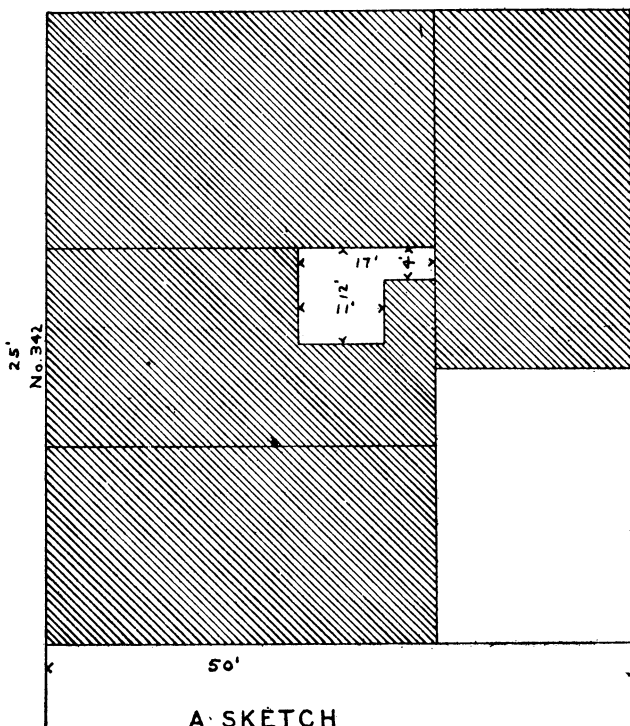
18. The vast number of persons discovered by your committee's inspectors, amounting to 11,627 on the first inspection alone, who have no regard for personal cleanliness, and who permit themselves to fall into such a condition of bodily filth as to become traveling menaces to the health and comfort of the public at large, brings up the question of the advisability of empowering the board of health to force such persons to bathe and renovate their clothing. This seems like a long step away from the theory of personal liberty, yet it has been successfully applied in several foreign cities. In one European city it is the practice of the health authorities, when a house inhabited by persistently dirty people is found, to order them all to a public bathhouse, force them to remove their clothing, and then turn the hose on them. Logically it is as just to compel a man to refrain from permitting himself to become a nuisance to his neighbors or to those persons with whom he may come in contact in the streets or in public conveyances, as it is to compel him to refrain from permitting his building to become a public nuisance.

OVERCROWDING.

19. The matter of overcrowding is perhaps the point least thoroughly covered by this inspection. This is explained by a lack of time and funds. In a general way it may be stated that

CHARLTON ST

HUDSON ST.



A SKETCH
Showing the AIR SPACE in No. 342 Hudson St.,

the reports herewith transmitted show that overcrowding is common enough in the tenement-houses of New York to have a distinct effect on the death-rate. The remedy for it lies not in increasing or changing the present laws governing it, but in supplying the board of health with men and money enough to enforce those statutes which are already a part of the Sanitary Code.

UNCOVERED AREAS.

20. The average yard area as given in the summaries of this investigation is, of itself, sufficient argument in confirmation of the wisdom of your committee's call for a greater uncovered area of lots on which tenement-houses are built. It should be stated in addition that in hundreds of cases discovered by this inspection the total occupied area ranges from 90 to 100 per cent. See plan of 342 Hudson street.

BAD SANITARY SURROUNDINGS.

21. By the second inspection 477 houses are reported as suffering from bad sanitary surroundings. This means either that their air is polluted by stables or other business places wherefrom are likely to arise an unpleasant or dangerous odor, or else that they are so surrounded by high buildings that they are shut off from obtaining their proper share of light and air. It should, in the opinion of your secretary, be within the province of the health board to abate such dangerous influences or else to order the vacation of the tenement-house so affected.

HIGH DEATH-RATE HOUSES.

22. At your secretary's request, President Wilson, of the board of health, prepared a careful summary of the conditions existing in 66 tenements, which are known to that department as having persistently high death-rates. Their average population and the deaths which have occurred in them for five years are as follows:

Population	5,460
Deaths, 1889	207
Deaths, 1890	234
Deaths, 1891	247

Deaths, 1892	217
Deaths, 1893	348
Deaths, 1894 (part of the year only).....	60
Total	1,313

This is a powerful arraignment of the front and rear buildings on the same lot, and of the old buildings, decried in your report. Examination of the statistics, shows that all of the 66 buildings reported by President Wilson, as having abnormally high death-rates, are of that character.

Summary of the First Two Inspections.

Total number of houses investigated.....	2,425
Total number of rear houses.....	314
Total number of apartments.....	18,170
Total number of rooms.....	43,561
Total population	67,897
Number of apartments in rear houses.....	2,508
Population in rear houses.....	9,157

CLEANLINESS OF APARTMENTS.

Population of apartments reported as very dirty.....	16,611
Population of apartments reported as dirty.....	16,253
Population of apartments reported as clean.....	35,033

WATER SUPPLY — LOCATION.

Number of apartments with water supply in hall....	8,812
Number of apartments with water supply in rooms...	7,016
Number of apartments with water supply in yard....	2,342
Population of water in hall.....	36,700
Population of water in rooms.....	26,836
Population of water in yard.....	4,361
Number of apartments containing bathrooms.....	41
Population of apartments containing bathrooms....	306
Number of apartments without bathrooms.....	18,129
Population affected by this condition.....	67,591

POPULATION BY FRONT AND REAR HOUSES.

Number of families	15,726
Number of families in front houses.....	13,354
Number of families in rear houses.....	2,372
Population over 16, male	20,129
Population over 16, female	19,503
Population under 16, male	15,418
Population under 16, female	12,847
Population over 16 in front houses.....	33,936
Population over 16 in rear houses.....	24,107
Population under 16 in front houses.....	5,745
Population under 16 in rear houses.....	4,109
Number of boarders	4,644
Number of apartments occupied by two families each.	4
Number occupied by three families each.....	1

CLEANLINESS OF PERSONS.

Cleanliness of persons, by families, very dirty.....	3,367
Cleanliness of persons, by families, dirty.....	6,116
Cleanliness of persons, by families, clean.....	6,243
Total population, very dirty.....	11,718
Total population, dirty	14,931
Total population, clean	41,248

INCOME.

Number of incomes given	14,250
Number of incomes refused	1,476
Average income per family	\$11 04
Average income per individual	2 01

It should be explained here that in these figures are 41 cases wherein small storekeepers, etc., have reported the total receipts instead of the profits of their business, as their bona fide income. Eliminating these cases entirely, the corrected figures are:

Number of incomes given	14,209
Average income per family.....	\$9 04
Average income per individual	1 84

RENTAL.

In giving the results of the examination into rentals, it is necessary to explain that in many cases where families rent and occupy stores for business purposes, and live in rooms in other parts of the house, it has been found to be impossible to accurately separate the store rentals from the rental of the living apartments. This fact and one or two unusual cases where one family (in prosperous circumstances although living in the midst of poverty) has occupied very much more than the ordinary space in a tenement-house, brings out the following somewhat contradictory result:

Highest rental per month	\$30 00
Lowest rental per month	1 50

Omitting from this calculation all rentals which cover anything besides living apartments, and also omitting 12 extraordinary cases, the average rental affecting 1,104 families and a total population of 5,204, becomes \$9.91. Below is given a table showing the exact population affected by each rental up to \$30 by 50 cent stages:

Population at rental of.....	\$1 50 per month....	50
Population at rental of.....	1 80 per month....	2
Population at rental of.....	2 00 per month....	178
Population at rental of.....	2 50 per month....	83
Population at rental of.....	3 00 per month....	310
Population at rental of.....	3 50 per month....	389
Population at rental of.....	4 00 per month....	654
Population at rental of.....	4 50 per month....	593
Population at rental of.....	5 00 per month....	1,919
Population at rental of.....	5 50 per month....	1,300
Population at rental of.....	6 00 per month....	3,778
Population at rental of.....	6 50 per month....	2,543
Population at rental of.....	7 00 per month....	6,139
Population at rental of.....	7 50 per month....	3,997
Population at rental of.....	8 00 per month....	7,154
Population at rental of.....	8 50 per month....	3,998
Population at rental of.....	9 00 per month....	5,882
Population at rental of.....	9 50 per month....	2,315
Population at rental of.....	10 00 per month....	4,023
Population at rental of.....	10 50 per month....	1,310
Population at rental of.....	11 00 per month....	2,331
Population at rental of.....	11 50 per month....	1,076
Population at rental of.....	12 00 per month....	3,156

Population at rental of.....	\$12 50 per month....	747
Population at rental of.....	13 00 per month....	2,140
Population at rental of.....	13 50 per month....	732
Population at rental of.....	14 00 per month....	1,228
Population at rental of.....	14 50 per month....	691
Population at rental of.....	15 00 per month....	1,256
Population at rental of.....	15 50 per month....	567
Population at rental of.....	16 00 per month....	1,037
Population at rental of.....	16 50 per month....	579
Population at rental of.....	17 00 per month....	579
Population at rental of.....	17 50 per month....	445
Population at rental of.....	18 00 per month....	1,225
Population at rental of.....	18 50 per month....	125
Population at rental of.....	19 00 per month....	247
Population at rental of.....	19 50 per month....	32
Population at rental of.....	20 00 per month....	954
Population at rental of.....	21 00 per month....	247
Population at rental of.....	22 00 per month....	410
Population at rental of.....	22 50 per month....	18
Population at rental of.....	23 00 per month....	305
Population at rental of.....	24 00 per month....	63
Population at rental of.....	25 00 per month....	486
Population at rental of.....	26 00 per month....	117
Population at rental of.....	26 50 per month....	7
Population at rental of.....	27 00 per month....	97
Population at rental of.....	28 00 per month....	35
Population at rental of.....	29 00 per month....	101
Population at rental of.....	29 50 per month....	16
Population at rental of.....	30 00 per month....	231

DEFECTIVE PLUMBING.

Number of apartments containing defective plumbing work	2,101
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DARK ROOMS AND IMPERFECT VENTILATION.

Number of apartments containing rooms not reached by direct light	5,608
Total number of dark rooms.....	11,242
Population in apartments containing dark rooms....	27,952
Number of apartments badly ventilated.....	3,987
Population of badly-ventilated apartments.....	34,586

MORALS.

Number of apartments devoted to prostitution.....	56
Total population of these apartments.....	237

LOSS OF RENTALS.

Total number of vacant apartments.....	1,726
Average loss of rental per house.....	\$5 87
Number of vacant apartments in rear houses.....	206

NOT INSPECTED.

Total number of apartments not inspected because of absence of family or locked doors.....	768
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FLOOR AREA.

Total area of apartments, square feet.....	5,166,852
Average floor space to each apartment, square feet..	284 4-10

POPULATION BY NATIONALITIES.

German	12,606
Irish	12,519
American	4,922
English	541
Austrian	1,367
Russian	8,817
Italian	18,347
Chinese	431
Colored	2,075
French	342
Bohemian	386
Hungarian	993
Danish	106
Swiss	28
Spanish	249
Scotch	13
Bavarian	3
Belgian	7
Swedish	254
Roumanian	108
Dutch	32

Polish	334
Hebrew	2,962
Greek	228
Japanese	1
Canadian	12
Norwegian	192
Arabs	18
Indian	4

AGE OF HOUSES.

Number of houses built before the present building laws went into force.....	2,392
Number of houses built after the present building laws went into force.....	33

MATERIAL OF CONSTRUCTION.

Number of brick houses	2,017
Number of wooden houses	228
Number of brick and wood houses	180

GENERAL CONDITION AS TO DILAPIDATION.

Houses in good condition	463
Houses in fair condition	220
Houses in bad condition	892
Houses in very bad condition	850

SANITARY CONDITION OF HALLS.

Without halls	10
With halls in good condition	766
With halls in fair condition	241
With halls in bad condition	689
With halls in very bad condition	719

VENTILATION OF HALLS.

Houses with hall ventilation, good	525
Houses with hall ventilation, fair	331
Houses with hall ventilation, bad	571
Houses with hall ventilation, very bad	988
Without halls	10

LIGHTING OF HALLS.

Halls lighted by day, good	• 864
Halls lighted by day, bad	1,551
Without halls	10
Halls without light at night.....	953
Halls lighted by gas till 10 p. m	987
Halls lighted by lamps till 10 p. m	470
Halls lighted by gas all night.....	3
Halls lighted by lamps all night.....	1
Total halls lighted till 10 p. m.....	<u>1,457</u>

WATER-CLOSETS AND SCHOOL SINKS.

Total number of water-closets and school sinks.....	10,508
Average number of water-closets and school sinks to each house	3 1-3
Average population to each water-closet or school sink	<u>6 1-2</u>

LOCATION OF WATER-CLOSETS AND SCHOOL SINKS

(by houses).

Yard	2,100
Basement	160
Hall	128
Apartments	<u>37</u>

CONDITION OF WATER-CLOSETS AND SCHOOL SINKS

(by houses).

Good	782
Fair	506
Bad	470
Very bad	<u>667</u>

YARD SPACE.

Total area of yards, square feet.....	1,017,505
Average yard area per house, square feet.....	419
Average square feet of yard area per capita	<u>14.9</u>

THE FRONT DOOR.

Front door open at all times.....	1,519
Front door on the latch.....	398
Front door locked at 10 p. m.....	<u>508</u>

FIRE-ESCAPES.

Houses without fire-escapes	636
Fire-escapes in bad order or insufficient.....	536
Fire-escapes obstructed	1,042

CLEANLINESS OF CELLARS.

Total number of clean cellars.....	1,044
Total number of dirty cellars.....	319
Total number of very dirty cellars.....	910
Number of houses without cellars.....	152

FLOOR MATERIAL OF CELLARS.

Earth	1,330
Wood	466
Stone	477
Without cellars	152

CELLAR VENTILATION.

Good	690
Bad,	388
Very bad	1,195
Without	152

OWNER'S NAME.

Name of owner or agent posted.....	2,335
Name of owner or agent not posted.....	90

**POPULATION AFFECTED BY THE VARIOUS CONDITIONS
REVEALED BY THE FIRST TWO EXAMINATIONS.**

By good construction	15,122
By very bad construction	23,855
By halls in very bad sanitary condition.....	25,216
By halls very badly ventilated	32,476
By halls lighted till 10 p. m. and all night.....	40,911
By halls dark-at night	26,986
By good water-closets or school sinks.....	18,676
By fair water-closets or school sinks.....	13,192
By bad water-closets or school sinks.....	12,650
By very bad water-closets or school sinks.....	23,379
By houses without cellars	4,256
By clean cellars	28,764

By dirty cellars	9,579
By very dirty cellars	24,298
By cellars with earth floors	39,208
By cellars with wood floors	11,411
By cellars with stone floors	13,022
By houses without cellars	4,256
By well ventilated cellars.....	17,204
By badly ventilated cellars.....	8,246
By very badly ventilated cellars.....	38,191

Summary of the Final Examination.

The examination of the houses selected in addition to the 2,425 classified above, by your committee's inspectors, as being in a notably defective condition, shows the following results:

Total number of houses investigated.....	1,559
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AGE OF HOUSES.

Number of houses built under the old law.....	1,547
Number of houses built under the new law.....	12

MATERIAL OF CONSTRUCTION.

Number of brick houses.....	1,339
Number of wooden houses.....	88
Number of brick and wood	132

CONDITION AS TO DILAPIDATION.

Good	61
Fair	566
Bad	652
Very bad	280

CONDITION OF HALLS.

As to cleanliness, clean.....	331
As to cleanliness, dirty.....	718
As to cleanliness, very dirty.....	496
As to cleanliness, without halls.....	14

As to light, daylight by day.....	720
As to light, gas by day.....	12
As to light, lamp by day.....	4
As to light, dark by day.....	809
As to light, gas all night.....	9
As to light, lamps all night.....	9
As to light, dark all night.....	304
As to light, gas till 10 p. m.....	732
As to light, gas and lamps till 10 p. m.....	8
As to light, lamps till 10 p. m.....	499
As to ventilation, good.....	169
As to ventilation, fair.....	324
As to ventilation, bad.....	687
As to ventilation, very bad.....	365

WATER-CLOSETS AND SCHOOL SINKS.

Number of water-closets and school sinks.....	5,478
Number of water-closets.....	1,364
Number of school sinks.....	4,114
Location of closets, yard.....	1,292
Location of closets, hall.....	173
Location of closets, basement.....	80
Location of closets, apartment.....	14
Condition of closets, good.....	118
Condition of closets, fair.....	305
Condition of closets, bad.....	767
Condition of closets, very bad.....	429

BUSINESS PREMISES.

Sanitary condition, good.....	134
Sanitary condition, fair.....	297
Sanitary condition, bad.....	429
Sanitary condition, very bad.....	129
Sanitary condition, without business.....	570

CONDITION OF YARD.

Sanitary condition, good.....	202
Sanitary condition, fair.....	291
Sanitary condition, bad.....	624
Sanitary condition, very bad.....	242
Without yards.....	200

CONDITION OF CELLARS.

Without cellar	161
As to cleanliness, good.....	118
As to cleanliness, fair	225
As to cleanliness, bad	669
As to cleanliness, very bad	386
As to floor material, earth	889
As to floor material, wood	238
As to floor material, stone	134
As to floor material, brick	28
As to floor material, concrete	75
As to floor material, earth and wood	22
As to floor material, earth and stone	11
As to floor material, earth and brick	1
As to ventilation, draught.....	574
As to ventilation, no draught.....	824

FRONT DOORS.

Door open at all times	1,033
Door locked at 10 p. m.....	526

CLEANLINESS OF APARTMENTS.

Good	85
Fair	482
Bad	666
Very bad	326

WATER SUPPLY.

As to location (by houses), yard.....	142
As to location (by houses), hall.....	861
As to location (by houses), apartment	556
As to quantity, sufficient.....	1,337
As to quantity, insufficient	222

APARTMENTS AND ROOMS.

Total number of apartments	15,315
Total number of apartments occupied	13,788
Total number of apartments vacant.....	1,527
Total number of rooms	43,341
Apartments containing rooms without direct light...	1,671
Ventilation of apartments good	134

Ventilation of apartments fair	500
Ventilation of apartments bad	817
Ventilation of apartments very bad.....	108
Sanitary surroundings good	1,082
Sanitary surroundings bad	477

FIRE-ESCAPES

Houses with fire-escapes.....	1,148
Houses without fire-escapes.....	411
Fire-escapes sufficient	846
Fire-escapes not sufficient	302
Fire-escapes obstructed	661
Fire-escapes not obstructed	487

ORIGINAL PURPOSE.

Built for tenement purposes.....	1,409
Altered for tenement purposes.....	150

POPULATION.

Population over 16, male	16,533
Population over 16, female	15,822
Population under 16, male	10,471
Population under 16, female	10,600

Total	53,426
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POPULATION AFFECTED BY THE VARIOUS CONDITIONS
REVEALED BY THIS EXAMINATION.

By old houses	52,702
By new houses	724
By good construction	2,218
By fair construction	14,027
By bad construction	25,745
By very bad construction.....	11,436
By clean halls	10,931
By dirty halls	25,826
By very dirty halls.....	16,021
No halls	648
By halls lighted by daylight by day.....	19,354
By halls lighted by gas by day.....	388
By halls lighted by lamps by day.....	188
By halls dark by day	32,848

By halls lighted by gas all night	326
By halls lighted by lamps all night	244
By halls dark all night	8,554
By halls lighted by gas till 10 p. m.....	27,865
By halls lighted by lamps till 10 p. m.....	15,789
Ventilation of halls, good	5,005
Ventilation of halls, fair.....	9,175
Ventilation of halls, bad.....	25,358
Ventilation of halls, very bad.....	13,240
By water-closets	11,774
By school sinks	41,214
By water-closets and school sinks.....	438
Average number of water-closets and school sinks to each house	3.45
Average population to each water-closet and school sink	9.94
By location of water-closets or school sinks in yard..	45,335
By location of water-closets or school sinks in hall...	5,911
By location of water-closets or school sinks in base- ment	1,832
By location of water-closets or school sinks in apart- ment	348
By condition of water-closets or school sinks, good..	3,581
By condition of water-closets or school sinks, fair...	10,248
By condition of water-closets or school sinks, bad....	24,819
By condition of water-closets or school sinks, very bad,	14,778
By houses without business premises.....	16,357
Business premises good.....	4,499
Business premises, fair.....	11,500
Business premises, bad.....	16,394
Business premises, very bad.....	4,676
Average size of yard to each house.....	538.35
Square feet of yard to per capita population.....	13.31
By condition of yard, good.....	7,065
By condition of yard, fair.....	12,572
By condition of yard, bad.....	21,915
By condition of yard, very bad.....	9,314
No yard	2,660
By good cellar.....	20,245
By damp cellar.....	18,052
By very bad cellar.....	3,171
By earth cellar floor.....	32,669
By wood cellar floor.....	7,430
By stone cellar floor.....	4,852
By brick cellar floor.....	1,110

By concrete cellar floor.....	3,773
By draught	22,087
By no draught.....	27,747
By front door open.....	34,688
By front door closed.....	18,738
By clean apartment.....	2,956
By fair apartment.....	16,675
By dirty apartment	23,601
By very dirty apartment.....	10,194
Average number of rooms to each apartment.....	2.83
Average population to each apartment	3.88
Average population to each room	1.38
By water in yard.....	5,431
By water in hall.....	31,309
By water in apartment.....	16,686
Sufficient water	45,016
Insufficient water	8,410
Total number of apartments.....	15,315
Total number of apartments occupied	13,788
Total number of apartments vacant	1,527
Average rental	\$10 08
Total loss of rental.....	\$15,392 16
By dark rooms.....	43,063
By good ventilation.....	4,363
By fair ventilation.....	15,203
By bad ventilation.....	30,856
By very bad ventilation.....	3,004
By good surroundings.....	37,195
By bad surroundings.....	16,231
Total number of houses affected by bad odors.....	831
Total population (bad odors).....	27,723
By houses with fire-escapes.....	40,906
By house without fire-escapes.....	12,520
By houses with sufficient fire-escapes.....	37,102
By houses with insufficient fire-escapes.....	3,804
By houses with obstructed fire-escapes.....	26,860
By houses with unobstructed fire-escapes.....	14,046
By houses with front door open.....	50,357
By houses with front door closed.....	3,069

POPULATION BY NATIONALITY.

Irish	16,682
American	6,473
Russian Jew	9,041
German	10,314

Negro	255
English	20
Chinese	5
Hungarian	1,910
Italian	7,959
Bohemian	388
Austrian	143
Roumanian	194
Lithuanian	31
Scotch	11

Condensed Summary of Both Investigations.

Total number of houses investigated	3,984
Total number of apartments investigated.....	33,485
Total number of rooms.....	86,902
Total population	121,323
Population over 16, male	36,662
Population over 16, female	35,325
Population under 16, male	25,889
Population under 16, female	23,447

VENTILATION.

Houses with hall ventilation, good.....	694
Houses with hall ventilation, fair	655
Houses with hall ventilation, bad.....	1,258
Houses with hall ventilation, very bad.....	1,353
Houses without halls.....	24
Houses with cellar ventilation, good.....	1,264
Houses with cellar ventilation, bad.....	2,407
Population affected by very badly ventilated halls...	71,074

LIGHT.

Number of apartments containing rooms not reached by direct light.....	7,279
Total number of dark rooms.....	16,756
Population affected	71,015
Halls lighted at night till 10 p. m.....	1,461
Population affected	84,565
Halls dark all night.....	1,257
Population affected	26,986

WATER-CLOSETS.

Located in yard	3,392
Located in basement	240
Located in hall	301
Located in apartments	51
Total number of water-closets and school sinks	15,986
Average number to each house.....	4.01
Average population to each water-closet or school sink	7.62
Condition, good	900
Condition, fair	811
Condition, Bad	1,177
Condition, very bad	1,090
Population affected by good water-closets.....	22,257
Population affected by fair water-closets.....	23,440
Population affected by bad water-closets.....	37,469
Population affected by very bad water-closets.....	38,157

WATER SUPPLY.

In hall.....	2,055
In rooms	1,402
In yard	527
Population affected by water in hall.....	68,009
Population affected by water in rooms.....	43,522
Population affected by water in yard.....	9,792

CLEANLINESS OF APARTMENTS.

Population of apartments, very dirty.....	26,805
Population of apartments, dirty.....	39,854
Population of apartments, clean.....	54,664

AGE OF HOUSES.

Built before the new building law.....	3,939
Built after the new building law.....	45

MATERIAL OF CONSTRUCTION.

Brick	3,356
Wood	316
Brick and wood	312

CONDITION AS TO DILAPIDATION.

Good	524
Fair	786
Bad	1,544
Very bad	1,130

Population affected, good	17,340
Population affected, fair.....	21,257
Population affected, bad	47,435
Population affected, very bad	35,291

SANITARY CONDITION OF HALLS.

Without halls	24
Good	1,097
Fair	241
Bad	1,407
Without halls, very bad	1,215
Population affected by halls in very bad sanitary condition	41,236

FIRE-ESCAPES.

Without fire-escapes	1,047
Fire-escapes in bad order or insufficient.....	1,038
Fire-escapes obstructed	1,703

CONDITION OF CELLARS.

As to cleanliness, clean.....	1,387
As to cleanliness, dirty.....	988
As to cleanliness, very dirty.....	1,246
Without cellars	313
As to floor material, earth.....	2,219
As to floor material, wood.....	704
As to floor material, stone.....	611
As to floor material, brick.....	28
As to floor material, concrete.....	75
As to ventilation, draught	1,264
As to ventilation, no draught	2,407
Population affected by clean cellars.....	49,009
Population affected by dirty cellars.....	27,631
Population affected by very dirty cellars.....	33,469
Population affected by cellars with earth floors.....	71,877
Population affected by cellars with wood floors.....	18,841
Population affected by cellars with stone floors.....	17,874
Population affected by cellars with brick floors.....	1,110
Population affected by cellars with concrete floors..	3,773
Population affected by well ventilated cellars.....	39,291
Population affected by badly ventilated cellars.....	74,184

THE FRONT DOOR.

Front door open at all times.....	2,552
Front door locked or on latch.....	1,432

POPULATION BY NATIONALITIES.

German	22,920
Irish	29,201
American	11,395
English	561
Austrian	1,510
Russian	10,727
Italian	26,306
Chinese	436
Colored	2,330
French	342
Bohemian	774
Hungarian	993
Danish	106
Swiss	28
Spanish	249
Scotch	24
Bavarian	3
Belgian	7
Swedish	254
Roumanian	302
Dutch	32
Polish	334
Hebrew	12,003
Greek	228
Japanese	1
Canadian	12
Norwegian	192
Arabs	18
Indians	4
Lithuanians	31

EDWARD MARSHALL,

Secretary.

January 17, 1895.

SUPPLEMENT No. 2.

Model Tenements.

No part of your committee's investigation has brought forward more valuable results than that which concerns the various improved dwellings for the poor now existing in New York city and Brooklyn. Much credit should be given to the careful and intelligent effort which Mr. Curtis Brown contributed to this examination.

This examination shows, in the main:

First. That improved dwellings can be so constructed and managed that they may be rented at prevailing rates and still yield a good profit.

Second. That their effect on the health of their tenants is good.

Third. That they have an unmistakable tendency to raise the moral tone of their tenants.

Fourth. That their influence on neighborhoods, wholly unfavorable in all other features, is elevating.

In New York city the principal efforts towards furnishing improved dwellings to the poor, have been made by the Improved Dwellings Association, of which Mr. W. B. Cutting, R. F. Cutting, D. Willis James, S. D. Babcock, Cornelius Vanderbilt, J. W. Pinchot, John Claflin, George Bliss and Dennison Wood, are trustees; by Messrs. R. Fulton Cutting and W. Bayard Cutting, in a separate enterprise; by the New York Tenement-House Building Company and Association, of which Mr. Joseph Drexel, Mr. Oswald Ottendorfer and Dr. Felix Adler, have been and are the animating spirits; by the Chichester estate; by Miss Ellen Collins, and by Mr. Sloan. In Brooklyn Mr. Alfred T. White, now commissioner of public works, has carried out an enterprise which has been an object lesson not only to New York but to the whole country.

All but one of these projects is taken up in detail below.

THE IMPROVED DWELLINGS ASSOCIATION BUILDINGS.

In defining its objects, Mr. W. Bayard Cutting, the association's president, said of this enterprise:

"The company was incorporated in order to demonstrate that clean, comfortable and scientifically constructed buildings could be erected for the laboring classes, and rented at rates at least as reasonable as were received for less desirable accommodations elsewhere, while the owners still received a fair profit on their investment. I wish to particularly emphasize that the problem presented was not merely that of constructing scientific tenements, nor simply that of constructing tenements that would pay. Either of them alone was not the problem needing solution. It was the combination of the two that made the experiment valuable."

The buildings were designed and erected with the assistance of what was then the most expert existing knowledge. Sir Sidney Waterlow, of London, among others, was called in consultation.

By their articles of association, the stockholders in these buildings limited the dividends to 5 per cent., and these dividends have been promptly earned and paid—2½ per cent. every six months—since the buildings were opened. No dividend has been paid which has not been conservatively earned, and, as a matter of fact, each year a pleasing surplus has remained after the dividends were paid. The fiscal year 1892-93 paid a dividend to stockholders of \$14,500 and a surplus of \$4,000. The year before the surplus was \$5,000. The surplus is generally expended in adding new improvements, such as asphalt roofs, to the buildings.

The buildings cover, with the roomy court yard, 16 city lots. This enables a plan of construction to be carried out which gives direct light and air to each room. There are 218 apartments in the buildings; 64 are two-room apartments and rent for from \$6.25 to \$7.50 a month. The others are made up of from three to four rooms each and rent at rates ranging from \$8 to \$15. There is but one apartment at the latter price.

On the ground story of every building, one two-room tenement is given up to the comfort of the tenants, containing a large bathroom with a cozy parlor and reading-room attached. In the top story of every house, there is a common laundry. Ample provision is made for hanging clothes either on the roof or in the court yards.

The conditions on which the premises are let are as follows:

"It is distinctly understood that the renting is for one month only.

"All rents are payable monthly in advance, at the office of the association, No. 362 East Seventy-second street. This regulation will be most strictly enforced.

"Disorderly tenants will be immediately dispossessed.

"Tenants will be held responsible for all preventable damage to the apartments they occupy.

"In cold weather care must be taken to prevent freezing of the water pipes.

"The association does not hold itself responsible for water damage.

"All garbage must be burned. Throwing paper, vegetables or other refuse, oyster shells, etc., down the ash-shoots is strictly forbidden. Nothing whatever may be thrown into the water-closets.

"Tenants are required to take weekly turns cleaning closet, flight of stairs and hallway leading to their apartment, which must be swept every day and scrubbed once each week.

"Clothes may only be dried in the yard or on the roof.

"Carpets may only be shaken or beaten in the yards at convenient times, to be determined by the agent.

"Plants must not be watered outside the windows.

"The window-shades must be kept in repair by the tenants.

"No tenant will be allowed to sublet any portion of the apartment, or take a boarder without the permission of the association.

"No animals will be allowed in the apartments or about the premises.

"In case of contagious or infectious sickness, notice of the same must be given to the agent as quickly as possible.

"In case of fire, notice must be instantly given to the agent or janitor."

The architectural features of these buildings are direct light and air in every room, fireproof halls and stairs. Each apartment has a water-closet of its own, and coal lifts and air-shoots are provided. Each kitchen has stationary tub, and good facilities for the drying of clothes are provided. Rentals range from \$6.50 to \$12 per month.

It has been argued by those who hold that model tenements cannot be successfully built in New York, that it would be impossible now to buy land in a tenement district at so low a price as that paid by the Improved Dwellings Association. It is true that the price paid by the Improved Dwellings Association for its ground was less than 50 per cent. of the market

value of the land to-day, but it is to be remembered that the buildings themselves have had a large influence in the direction of increasing land values in that neighborhood. Granting that land could not be obtained so cheaply now, the fact that construction has greatly decreased in price offsets the argument to some extent. Besides that, these buildings were not constructed economically and this had its part in increasing the capitalization upon which a dividend of five per cent. has been annually paid.

These buildings have done more towards bettering the part of the city in which they are situated than to increase land values. Their moral effect on the neighborhood has been quite as great as their financial effect. To this the records of the police precinct significantly testify. The tenants too, have been greatly elevated in home life and habits by the influence of their surroundings.

THE CUTTING FOURTEENTH STREET BUILDING.

The buildings which the Messrs. Cutting erected at Fourteenth street and Avenue A, even though they have been a disappointment to the owners, are still a powerful object lesson to those who maintain that model tenements can not be profitable investments. The construction of these buildings was admittedly faulty and wasteful. They were very extravagantly built. The court-yard in the center is unnecessarily big, the halls are unnecessarily wide, and the saving on these two matters would alone have made a material difference in the percentage of the income from the buildings. These are by no means, however, the only points where economy might have been exercised without robbing the tenants of advantages. In addition to this, comes the fact that while the ground story is occupied by eight stores, which it was expected, would bring good rents and thus help the enterprise towards financial success, the neighborhood, has not developed enough different industries to supply them with tenants. Thus, while the building in the main keeps up the average of occupancy, these stores are vacant much of the time and are a heavy drain upon the building's income. Notwithstanding all this, however, the building in ordinary years has paid a profit of between 3 1-2 and 4 per cent. net.

It was erected in 1887-8. No money was spared in its design or execution. Halls and stairs are absolutely fireproof, and every room has its window into the open air. A water-closet is provided for each two families, and ash shoots and coal lifts are at hand for the convenience of the tenants.

The moral effect of this building has been definitely elevating. The whole neighborhood has improved in tone since its erection, and no buildings of a notably inferior class have been erected near it. The tenants themselves have gained, its projectors feel sure, both in moral tone and thrift since their entrance into its apartments. A significant indication of this lies in the fact that the tenants are said to be rather more particular about the character of new-comers than is the agent himself. The death-rate of this house is lower than that of the other tenements in the neighborhood, and is lower than that of the whole city.

THE RIVERSIDE BUILDINGS.

The Riverside buildings in Brooklyn, built and owned by Alfred T. White, form probably the most striking example to be found in this part of the world, of the wholly successful model tenement.

A part of the dwellings were erected in 1876-78, and the whole group was completed in 1890. In detail, the property consists of 527 tenement apartments and 31 small brick cottages. Of the 527 tenement apartments, there are 50 consisting of five or six rooms, 307 consisting of four rooms, 167 of three rooms, and three of two rooms. One room of each set is a small scullery.

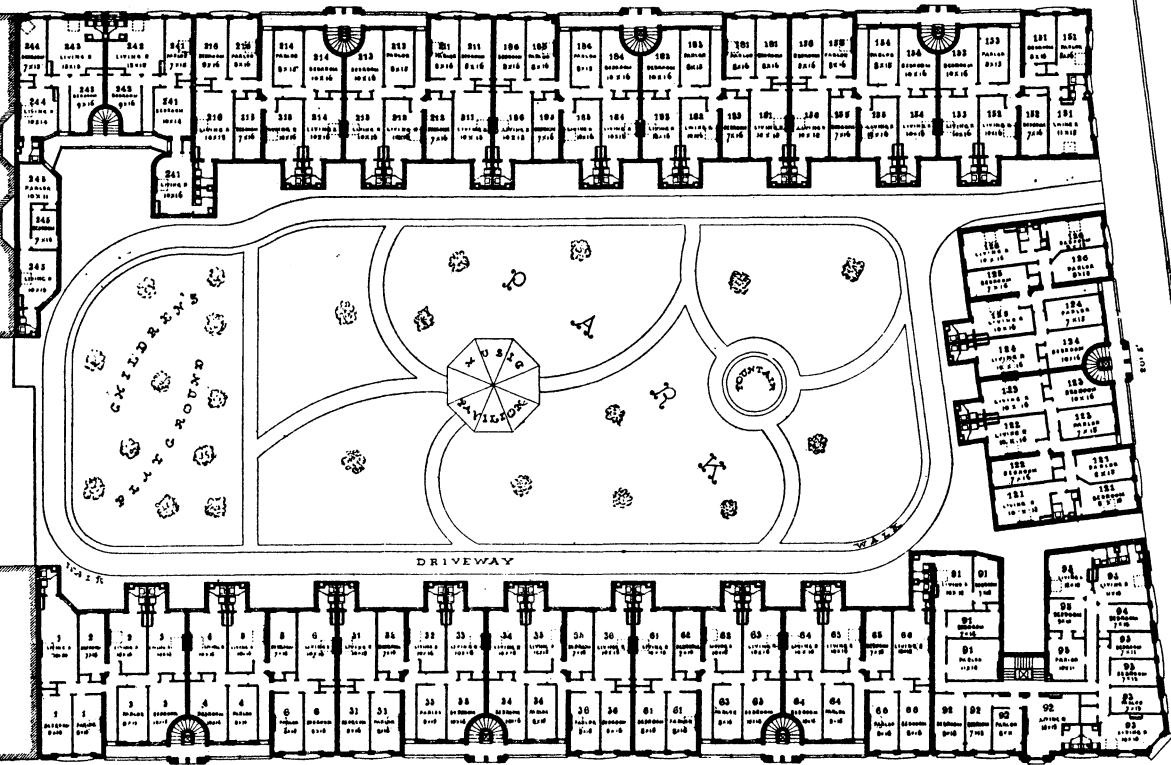
The distinguishing characteristics of these plans are fireproof staircases, sunk into the front of the building and open to the air; all water conveniences separately furnished to each family; buildings only two rooms deep, so that all dwellings have abundance of light and air. They are so arranged that each group of three families is practically entirely separated from all others in the buildings. The communication of odors, disease or fire from floor to floor is impossible. Every suite has a well arranged sink, wash tub and water-closet. These have in no instance been abused, although the tenants are of the very poorest class. Forty per cent. of them are day laborers, 40 per cent. mechanics, artisans and tradesmen, and 20 per cent. employes about shops, stores and houses. This shows a lower average of proportionate income than is shown by the model tenements of London. The larger of the buildings incloses an interior park 250 by 150 feet in size, 12 full city lots, containing a prepared playground for children, a lawn, shrubs and a band stand, where music is discoursed once a week throughout the summer at the expense of the company.

With a view of encouraging thrift, two plans have been tried — (1) allowing a discount of 10 cents per week from the regular

FURMAN STREET

J O R A L I M O N S T R E E T

C O L U M B I A P L A C E



RIVERSIDE BUILDINGS
OF THE
IMPROVED DWELLINGS COMPANY
BROOKLYN, N.Y.
1890.
SECOND STORY PLAN.

SCALE:
1" = 10'-0"

WM FIELD & SON
ARCHTDS.



weekly rental, if four or more weeks are paid at one time; (2) paying back to the tenants who remain a full year in occupancy and who have violated no rules an annual "dividend" equal on the average to about three weeks' rent. About two-fifths of all secure the weekly rebate and two-thirds the annual "dividend."

Taking the two properties together, the gross returns for the year ending May 1st, were about 12 per cent. of the whole cost. This, after expenses of all kinds, including rebates and dividends, had been deducted, left a little over six per cent. net available for dividends and surplus fund.

Thus the venture is a distinctly profitable one, averaging 11-12 per cent. more profit than is paid in New York city by high-class apartments, residence or business property.

The frontage is 307 feet on Columbia place, 201 feet on Joralemon street and 238 feet on Furman street, or nearly 800 feet in all. The high-peaked towers, recessed fronts and balconies, broad window-sills and decorated brickwork, make the building most attractive in appearance. The ground includes nearly 24 full-sized city lots, of which the buildings covers less than one-half.

The plans have been scientifically studied to give the maximum of health and comfort at the minimum of cost.

The first aim has been to secure domestic privacy. Each apartment has its own "front door" opening into a small private hallway, from which all the rooms of the apartments are entered. Partitions and floors are deadened to prevent sound passing between apartments. Each apartment has good closets, a dresser and a hanging wall table. A fuel bin in the cellar belongs to each apartment. The scullery in the extension contains for each family separately a water-closet, sink, wash-tray and ash-shoot.

Every room has a large window on the park or on the street, and each apartment has thorough ventilation from front to rear.

The staircase arrangement is similar to that in the "Monroe," described later on. The stairs are fireproof, solidly built from cellar to roof, with slate steps. They are set in a brick recess, as described above, in the front of the buildings, well-lighted, well-aired and absolutely secured from danger in case of fire. The fire department of Brooklyn has pronounced these staircases to be the best possible safeguard against peril or panic. An adequate number of bathrooms, nicely fitted up, are at the service of the tenants, free of charge, at certain hours daily.

Lifts for coal, etc., are provided in all the buildings.

The following description was printed in the report of the board of health of Brooklyn: "In all of these buildings

the upper stories are reached by staircases open to the front. The stairs are of slate, set in solid brickwork towers. In rising from story to story a half turn is made, and at the top of each flight a slate balcony, protected by an iron railing, is reached. These balconies are about 30 feet long. From each end of each balcony a hallway runs directly back; private halls, admitting to the rooms of each dwelling, lead from this hallway. Thus, every family has its dwelling entirely private and apart from, and with no room opening into another's, while all have direct sunlight. The rooms are provided with closets with hooks and shelves, and the living-room with a dresser. The windows of all the rooms are of unusual size, and extend up close to the ceiling. From the living-room a door leads into the extension, a small room seven and one-half by five feet. This contains an ash-shoot door, a sink, a stationary wash-tub, a window and a water-closet with separate outside window. All of these conveniences are furnished to every family entirely apart from all others. The ash-shoots, one foot square, and ventilated at top, discharge into large ash-rooms in rear of cellars, separated from the main cellars by a brick wall, and accessible only by doors in the rear. No ashes or refuse are ever exposed on the sidewalk or elsewhere. All refuse is burned, and the ashes are loaded directly from ash-vaults into carts, which pass out by a rear gateway. The water supply is ample. The water-closets are all provided with cisterns overhead to insure instant supply of water. The traps are ventilated, and siphoning is prevented by vent-pipes carried above the roof. The wash-tubs and sinks are trapped separately from the water-closets. Waste-pipes pass down against the back wall of the extension and out through the rear wall of the cellars into the sewer, avoiding any horizontal drains under the buildings. Every family has a large coal and wood-bin in the cellar, numbered to correspond with its room.

"The buildings are all of good red brick, and all windows and outside doors are arched with brick. Floors are of the best yellow pine throughout. The flat gravel roof is used as a clothes-drying ground by the families in the upper three stories. For the occupants of the lower stories lines are provided in the yard. The slate staircase, extending from cellar to roof, is not only absolutely fireproof, but can not be reached by any fire that may occur in the buildings, forming an unequaled fire escape."

Provisions has been made in these buildings for eight stores and four small shops in the Columbia place frontage, and for eight stores in the Furman street frontage. Stores rent from \$25 upwards per month and shops from \$16 upwards. All these stores have plate glass windows of first-class quality and large

size. Each of the stores has a good cellar with convenient access from the street. There are living-rooms in the rear of the stores and shops.

Apartments are rented under the following rules:

1. All rents payable weekly in advance, on Saturday or Monday, at the office, 20 Joralemon street, during office hours.

2. Tenants paying four or more weeks in advance at one time will be allowed a deduction of ten cents per week.

3. Tenants not paying in advance will be notified to leave at once.

4. No tenant is permitted to underlet any portion of his apartments, or to take in lodgers.

5. Tenants are required to give immediate notice to the agent of any need of repairs and to pay for such as may be due to their own carelessness.

6. No nails to be driven in wall or woodwork without agent's consent.

7. In winter keep washrooms warm to prevent freezing of pipes.

8. Halls and balconies to be cleaned daily by the tenants using them.

9. Tenants are strictly prohibited from throwing anything out of the windows, and from obstructing the waste pipes or ash flues.

10. Only ashes to be thrown into ash flues.

11. All garbage must be burned or carried to the receptacles in the park.

12. No clothes to be hung out of windows or upon balconies.

13. No animals to be kept on the premises.

14. Carpets to be shaken only in the yard.

15. Clothes to be removed from lines so soon as dry. Lines not to be used on Sunday.

16. Plants must be watered only in the rooms.

17. Before washing windows notify tenants below.

18. Children not allowed on the roof, nor to play on the stairs or balconies.

19. Chopping or sawing wood not allowed except in cellars.

20. Disorderly tenants will be expelled at once.

21. The agent is required to enforce all these regulations, and will be immediately discharged if he neglects to do so.

Bath tickets may be had from the agent.

MODEL TENEMENTS ON CHERRY STREET.

Cherry street was in sore need of an object lesson in tenement-house reform until 1887, when the model tenement-houses at Nos. 333 to 334 Cherry street, were erected by the Tenement-House Building Company and Association, organized to improve the houses of the poor. The president of the company at that time was Mr. Joseph W. Drexel, and the vice-president was Mr. Oswald Ottendorfer, now president. The company's architects, were William Schickel & Co.

The lot, 116 by 98 is occupied by a building, divided in the rear by courts into two single and two double houses, leaving room in the yard in the rear 13 feet wide. The centre court between the two double houses is 13 1-2 feet wide, and the two other courts vary in width from five to nine feet. The following quotations from a pamphlet prepared by the company describing the houses, give the peculiar features of their construction:

"They are six stories in height, with a basement throughout, and are arranged with courts, varying in width from five feet to 13 1-2 feet, so that every room opens to the outside and has the advantage of light and air." * * *

"The houses contain 108 apartments in two and three-room suites, but so arranged that they can be conveniently divided into suites of four, five or six rooms, to meet the requirements of large or small families." * * *

"There are 43 two-room and 61 three-room apartments, and a kindergarten occupies the remaining four apartments. Wide entries running the length of the building with large windows in the rear, opening on the outside, separate the rooms."

* * * * *

"The floors throughout are constructed in a manner which makes them practically fireproof and the first story halls and all water-closets have iron beams and tile floors. The fire escapes are so arranged that an easy passage can be effected from house to house on the outside. The stairways are of iron and slate throughout and the entries are of brick with tiled floors."

* * * * *

"The yards and basements are finished in granolithic and are thoroughly drained and perfectly dry. In the basement separate storage lockers for fuel and provisions are provided for each tenant." * * *

"The plumbing is of superior order and is arranged so that all piping, fittings and apparatus are exposed to view. Running water is provided on each floor. In one of the houses hot and

cold water is supplied in each apartment, and in the other houses hot water is to be obtained in each basement and cold water in each living room."

"In the basement are laundries and bathrooms, with neat brick-faced wall and water-tight granolithic floors, for the free use of the occupants. The baths are one of the most popular features of the apartments. There were originally four bathtubs in the basement, and this number has since been increased to nine. They are free to the tenants at certain specified hours. There is scarcely an occupant who does not use them regularly. The common laundry in the basement is provided with hot and cold water. From the laundry the clothes can be sent up in the elevators and dried on the roof." * * * *

"The water-closets are ample, one for each two apartments and are constructed according to the most approved methods. In addition to an outside window, a large ventilating flue has been provided for each water-closet, which insures a continuous circulation of air. The main hall, the kindergarten, and the water-closets are heated with steam from low-pressure boilers, which are also used throughout the year for making hot water for bathrooms, laundries and sinks."

A noteworthy feature of the house is the flat roof, paved with brick and enclosed by an iron fence. It makes an excellent playground for the children, who are permitted to play there at all hours of the day. On hot summer nights many of the tenants take their mattresses up there and sleep under the sky. Concerts are frequently given there in summer. Thanks to the courts, there is no room in the house without direct light, although some of the rooms opening on the courts are not as light as could be desired and on dark days gas is used all day in the kindergarten. All of the entries are lighted by windows and each stairway is admirably lighted by large windows between the floors.

One fact that makes these tenements especially worthy of study is that of late they have come to be occupied largely by Russian Hebrews, whose peculiarities make difficult problems for landlords. In spite of all efforts to the contrary, most of them take in lodgers, the family generally sleeping in one room, and the lodgers occupying mattresses on the floor of the other room or rooms. The smallest rooms are made to bring to the tenant in this way about \$5 a month. Often a family occupying only two rooms will have two or three lodgers, and not infrequently the lodgers sleep on the floors of the room occupied by the family.

Another peculiarity of the race is its fondness for oil stoves, to the great detriment of the walls and ceilings of the apartments, which have to be calsomined frequently. A common custom is to move the stove out into the halls and do the cooking there, despite the efforts of the housekeeper to suppress the practice. A majority of the tenants are shirtmakers or tailors and much vigilance is required to prevent them from using their apartments as small sweat-shops. An effort is made to limit the number of sewing-machines in an apartment to one, and the tenant is required to keep padding between the feet of the machine and the floor to avoid disturbing those who are underneath. Many of them persist in throwing rubbish and garbage out of the windows, making it unsafe for children to play in the courts. For this reason a gate has been placed across the entrance to the longest court. To the credit of the janitor, however, the courts are kept remarkably clean in the circumstances. It is found difficult, too, to enforce the rules against blocking the fire-escape balconies. Tenants of this class are also extraordinarily quick to take advantage of opportunities to escape payment of rent. Many of them can not speak English.

In view of these untoward circumstances, the success of the Tenement-House Building Company has been remarkable. They have established an improvement where it is most needed. Two men are kept busy the most of the time calsomining, and three women are kept well-occupied in cleaning the halls and stairways, which, it is safe to say are generally in as good condition as in the average high-priced flat. The basement, with its bathrooms, laundries and storage lockers, one or the other of them nearly always in use in the daytime, is a model of cleanliness. The walls of the halls are painted and the ceiling papered. This neatness has a certain effect upon the tenants who, in general, grow more cleanly the longer they stay, the apartments taking on more and more the appearance of the halls. The kindergarten, attended daily between 9 and 12 a. m., by about 50 children, mostly from this house, and also for sewing classes and boys' clubs, has a marked effect upon the tenants:

The rules are as follows:

1. The second of each month is the last date by which all rents must be paid.
2. A deposit of \$1 must be made with the agent for the use of the keys, and to insure their proper return. The deposit will be returned upon the surrender of all the keys.
3. Only quiet, honorable and respectable families are accepted as tenants and tolerated in the house; no tailoring or any other kind of shop-work is allowed in the rooms.

4. No nails are to be driven into the walls. Tenants must bear the cost of repair of any damages arising from their carelessness, and from the violation of this rule

5. Tenants must (by turn) scrub and clean their hallways and closets.

6. No tenant is permitted to sub-let any portion of his apartments nor to take any lodgers, without the agent's consent.

7. Tenants are requested to prevent their children from playing on the stairways.

8. All garbage is to be removed to the cellar. The dummy may be used for this purpose.

9. Nothing shall be placed on fire escapes. They shall be kept clear of encumbrances.

10. No solid matter is to be thrown into the waste pipes.

11. No playing upon musical instruments, nor any noise which would disturb other tenants is allowed after 10 p. m.

12. Tenants must not loiter about the halls and stairways.

13. Tenants are earnestly requested to report to the agent any violation of these rules on the part of any tenant or others.

14. Tenants not conforming strictly to all and each of these rules (as well as to other rules issued from time to time by the company) will not be allowed to remain in the house.

15. Tenants are earnestly requested to report to the agent at once any willful destruction of property, or any suspicious characters loitering around the hallways or roof.

The abrogation of some of these rules, as noted above, has been forced upon the company by the nature of the tenants. As it is, tenants complain that it is too strict in keeping the children out of the halls. Many tenants who have left have afterward begged to be allowed to return.

There are now 25 apartments vacant and this has been the average ever since the hard times began a year ago. This is due to the fact that from 15 to 20 per cent. of the population of this district, according to the estimate of real estate agents, owing property here have moved away, partly owing to the increase of manufacturing here and partly because the hard times have driven many of the poorest out of the city into smaller places where living is cheaper. Previous to this time these model houses had less than this number of apartments vacant. In consequence all rents are to be reduced from 10 to 15 per cent. on the 1st of January. At present the rents range from \$10 to \$15 a month for three-room apartments, according to location, and from \$6.50 to \$9.50 for two-room apartments. Difficulties in collection have also caused the company to adopt the weekly payment plan instead of monthly payments as here-

tofore. At least 12 tenants are behind in their rents, nearly all of them one month.

There are 86 families now on the rent-rolls, and the house-keeper estimates the average number of children to a family at three, which gives a total population of 430, exclusive of boarders. The death-rate has averaged between 14 and 15 per cent. less than two-thirds of the general death-rate. Only two fires have occurred in the house and the loss each time was \$25. On one of the occasions the escaping smoke was sufficient to cause the tenants to rush downstairs. It speaks well for the construction of the stairs that no one was hurt.

If these tenements were to be built over again it is probable that they would be provided with ash-shoots for each apartment, thus doing away with the custom of the tenants of throwing refuse out of windows instead of carrying it downstairs to the ash barrels, which are placed on the sidewalk at certain hours of the morning. Another practice of throwing garbage into the streets also would be abolished. It is probable, too, that the kitchen would not again be made the largest room of each suite, as most of the tenants have complained against this feature. They would prefer to have the stove and sink in one of the smaller rooms and use the larger for a parlor. Some of the bathtubs are copper and some are enameled iron, and it has been found by comparison that for the hard usage of a tenement house, the iron, which is cheaper, is also more durable.

These model tenement buildings cost \$123,215.13, and the land cost \$29,500, making the total investment \$152,215.13. It is important to note in this connection that the courts and the wide entries of these four houses take up the space that ordinarily would be used for another house and that according to the ordinary style of tenement-house construction the five houses so built would have cost in the neighborhood of \$40,000 less than the four houses actually built by this company. Further, the rental capacity of the building was reduced by the decision of the company to use it wholly for dwelling purposes instead of devoting the ground floor to stores. Despite these facts, the gross earnings of the company were \$11,825.97 in 1889. The maintenance expenses were \$3,956.81; interest on bond and mortgage, \$3,526.50; taxes, \$1,575.60, and water rates, \$284.40, making total expenses of \$9,044.31, and leaving net earnings of \$2,181.66 2 5-8 per cent. on the capital stock. The gross earnings for 1890 were \$11,919.68, and the net earnings \$3,322.50, which was 4 per cent. on the capital stock. In 1891 the income was 4 3-4 per cent.

It is provided by the by-laws of the Tenement-House Building Company that all dividends beyond 4 per cent. shall be used as

a reserve fund to be apportioned among all persons who shall have been tenants during any part of that year in proportion to the rent they have paid respectively, and shall credit to each person who shall have been a tenant during the three months of the whole year the share of such reserve fund which may have been apportioned to him on the books of the company.

MISS COLLIN'S TENEMENTS.

In May, 1890, Miss Ellen Collins bought the five-story brick tenement building Nos. 325, 327 and 329 Water street, at the southeast corner of Roosevelt, for \$12,500, at a partition sale. The house, which had been built in 1850, was known as a haunt of thieves and prostitutes and had been the scene of several bloody fights. The neighborhood had a peculiarly evil reputation. The halls, stairs and interior rooms were almost wholly dark day and night, and were a favorite hiding place for criminals when chased by the police. It used to be said that if a thief once got into the hallways of this building, there was no use of further effort to catch him. The plaster on the rooms was broken and very dirty. The floors were covered with dirt, and the few closets were unspeakably filthy. The liquor store in the corner of the building had been the nest of so much crime that the owner of the houses had closed it after an especially bloody affray and had refused to lease the place. The rents had dwindled until that for the last month previous to Miss Collins' ownership had been \$68, of which one man, the lessee of a store, paid \$50. The sum in arrears was \$118. The average rents collected for some time previous had been about \$70 a month.

Miss Collins has spent \$10,000 in improvements on this unpromising tenement, and has reduced the rents, yet she now receives \$234.50 a month from them. Her receipts from this tenement over all expenses are 5 1-2 per cent. a year not including the increase in the value of the land. The change in the condition of the tenants has been even more marked than the increase in the receipts. Arrests suddenly diminished in number the dirt and filth in the halls and apartments disappeared; the empty apartments quickly filled; the children withdrew from the streets to the yard in the rear, where they found a better playground. The tenants began to regard their rooms as "home" instead of living places; the collection of rents became easier; fighting, which had been the rule, became the rare exception, and the general condition of financial, moral and physical health among the tenants improved.

The most significant fact in all this transformation was that it was accomplished without change in the class of tenants.

Nearly all of those who lived in the place before Miss Collins bought it continued to dwell there. And to-day peddlers, long-shoremen and rag-pickers are more numerous in the house than they were then. With not more than two or three exceptions, no mechanic has lived in the house; and the tenants have been the poorest of the poor, who have had no regular income. Too much emphasis can not be laid upon this point, for it makes a most important difference between the two methods of tenement-house reform, viz.: the building of model new tenements and the redemption of old tenements from filth and vice. The tendency of the new model tenements is to fill with mechanics and workmen who have regular incomes and considerable intelligence and are less in need of attention than those who live from hand to mouth and occupy houses like that taken in charge by Miss Collins, and who could not afford to live in a higher-priced tenement, and might feel out of place there, even if they were to gain admission.

The most important of the alterations made by Miss Collins in the buildings she had bought was to tear down the rear wall of two (Nos. 327 and 329) of the three houses, which constituted practically one building, cut off a room from each floor and build a new wall twelve feet nearer the front, thus adding a space of twelve feet by forty to the yard in the rear. The corner house, No. 325, extending down Roosevelt street, was not altered in depth, serving to separate the yard from Roosevelt street.

A well (about 10 by 12 feet), for light and air, was also cut into the rear of No. 327, by advice of the architect, Mr. H. R. Marshall, and windows from each floor were cut to this well from the walls on all three sides. The effect of these windows affords one of the most interesting and instructive lessons to be found in the whole history of tenement-house improvement. Previous to this alteration, the adjacent halls and entries had been intolerably filthy. Sweepings, rubbish and excretions had been heaped in the corners, under cover of the prevailing darkness, until the place was well nigh impassable to one whose nostrils were not hardened. The change wrought by the flood of light from the new windows was sudden and surprising. The tenants were shamed by the sights revealed, and without waiting to be asked, hurriedly cleaned the halls and entries.

The plaster was taken from some of the walls throughout the houses and replaced by a fresh coat; carbolic acid was sprayed on others, and chloride of lime was used freely. As much light as possible was brought to the interior rooms by windows and transoms, and the landings to the stairways were extended out to the windows in the rear walls, forming a well

rigated platform on which sinks were built and on which the tenants now keep their wash-tubs and do all their washing. There is now but one dark stairway in the premises. The number of water closets in the yard was increased, until there was one for each floor of each house; and last, but by no means least, an intelligent, efficient resident agent was put in charge.

When Miss Collins took possession of this building, more than half of the apartments were vacant. Those who were there were induced to remain, by being invited to move into one house while changes were being made in another, with the promise of having a choice of the renovated apartments, as soon as they were ready. The offer was gladly accepted, as no increase was made in rents.

Up to this point Miss Collins' enterprise was on a business basis. The improvements had made the apartments so desirable that they filled up at once with tenants, and all paid their rent for fear of ejection from a place much pleasanter than the average. But in 1884, Miss Collins made a deliberate departure into the field of philanthropy. The old brick building, consisting of three three-story and attic houses adjoining her property on the east, were used as dance halls and dives of the lowest sort. The children in the Collins tenements felt the contaminating influence, and, after repeated efforts, Miss Collins succeeded in leasing the property at a rent of \$1,500 the first year, and \$1,250 thereafter, a higher price than she could expect to get back by using the place for respectable purposes, it being a well known fact that houses used for improper purposes bring far higher rents than others, the conditions being equal.

The first step taken was to tear down the wall dividing the yards in the rear, adding a space of 40 by 50 feet to the common play-ground. The yard of the leased houses was found to be in frightful condition, and filth a foot deep was removed from it. The interior of the houses was almost as bad. The cellar was piled deep with decaying rubbish, and the space above the dance halls was divided into stalls. These partitions were taken out and the floors were cut into suites of apartments of three or four rooms, according to the choice of the tenant. The exterior wooden stairs, leading to the second floor, were replaced by stairs of iron frames, and iron frame balconies were erected, and the water supply was increased. In all \$1,500 was spent in improvements on these leased houses.

In 1893 Miss Collins, desiring to rid the neighborhood of a particularly disreputable dram-shop, also leased the house next

below those already rented, paying \$1,200 a year for it without expectation of getting back that sum. This place was likewise renovated at an expense of about \$400, and the yard in the rear was thrown open to the occupants of the other houses by the removal of the fence.

The leased house being much smaller than those belonging to Miss Collins and having yards of about the same size, the total yard space per inhabitant was considerably increased. The total size of the irregularly shaped yard in the rear of the whole 11 houses is approximately 100x40, with the exception of space occupied by two large flower beds; the yard is paved with brick and flagging. It is swept daily, and the tenants take considerable pride in keeping it clean. In summer they contribute 50 cents or \$1 apiece for flowers, which are cared for by the jaintor. The children are encouraged to play in this yard at all hours of the daytime, and the children of the neighbors are not only permitted but encouraged to play there also, the only condition being good behavior. In winter small skating ponds and slides are made.

The rents in Miss Collins' own houses range from \$3.50 a month for two rooms (provided with four windows), on the fifth floor, to \$8 a month, which is paid by only one family. The average is about \$5.50 a month. The suites in the leased houses adjoining are mostly larger and range in price from \$2.50 to \$13 a month, the average being about \$8. In the fourth leased house the prevailing rates are \$5.50 and \$6. The total yearly income from these houses is \$2,814, for those belonging to Miss Collins \$1,266 for the first three rented, and \$1,100 for the fourth. The cost of maintenance averages nearly half the receipts. The following statement for these houses owned by Miss Collins for the year ending on May 1, 1892, tells its own story:

Water tax	\$109 00
City tax, less rebate	301 20
Wages and rent	409 50
Gas	83 84
Calsomining and cleaning	102 98
Plumbers' bills	17 02
Carpenters' bills	117 02
Tinsmith	30 10
Mason	8 25
Ice, \$14.80; pump, \$5.24	19 84
Brooms, barrels and glass.	11 60
Carbolic acid, lime and hardware.	7 25
Stationery and cases	6 60

Rent lost	\$2 50
Cellars received	192 65
Repairs, lunch-room	50 00
Painting halls and yard.....	59 67
	<hr/>
	\$1,589 02
Rent due	4 50
	<hr/>
Total expenditures for the year	\$1,593 52
	<hr/>
Receipts for the year	\$2,823 03
	1,593 52
	<hr/>
Balance of profit	\$1,229 51
	<hr/>

The \$2.50 rent lost represented the total loss through vacancies in all the apartments. Miss Collins says: "I believe I have not lost more than \$150 on vacancies in apartments and rents unpaid on apartments in the whole 14 years since I bought those houses. The rents on the stores have been less happy but that is partly because of experiments that I have tried, such as the establishment of a lunch-room to circumvent the allurements of the free lunches offered in the neighboring saloons. This was not a success at the time, but I still believe that it can be made a success." Another experiment of this sort has been the establishment of a lodge-room on the ground floor of one of the leased houses, occupying the premises formerly used as a dance hall of the lowest character. The lodge-room is used twice a week as a cabinet making school for boys of the neighborhood who pay five cents a week for the lessons. The Fulton Council of the Legion of Honor also meets there. Many of the members are tenants of Miss Collins' houses. A little office in front of the lodge-room is used as a sort of club-room and reading-room by the tenants.

There have been no fires that were not put out before the fire department arrived and the fire escapes on each building, in accordance with the law, the fairly well lighted halls and the increased number of exits to the balconies are an assurance that the lives of the tenants are less endangered by fire than in ordinary tenements.

The death-rate can not be given, as no record has been kept, but there have been no epidemics in the house, and the health of the tenants is in general very good.

The total population of the house on December 26 was 185, consisting of 120 adults and 65 children. The small proportion

of children is due to the fact that many of the tenants are elderly people whose children have grown up and moved out into homes of their own.

The rules of the house are observed uncomplainingly. They are as follows:

1. No intoxication or bad language will be allowed in these buildings.

2. Tenants will be required to make good any damage arising from their own carelessness.

3. No tenant will be allowed to keep boarders, or to underlet any portion of their apartments, without a special agreement.

4. Ashes and garbage must be put into barrels provided for that purpose. Tenants must not throw slops in the barrel.

5. All wood must be broken in the yard. Tenants must not break wood on the window sills, in the rooms, or in the cellars.

6. Tenants must not throw anything out of the windows, or keep flower-pots, or anything on the window sills without being properly secured.

7. The halls, stairs and fire escapes must be kept clear of everything. Tenants washing in the hall-ways are expected to wipe the floor and remove tubs, etc., as soon as they get through.

8. Tenants must not use any sink but on the floor they live, and they must keep it clean.

9. Tenants must, in turn, scrub the halls, stairs and water-closets. This must be done at least once a week.

10. Halls and stairs must be swept every morning. To avoid confusion each tenant sweeps a whole week at a time, beginning on the day they scrub.

11. The open space in the cellars must be kept clear of everything. No offensive wood will be allowed in or about the buildings.

12. The hall doors will be locked every night at 10 o'clock, tenants out after that hour will use a night-key.

13. No tenant will be allowed to lounge in the hall-ways, on the stairs or about the front of these buildings.

Miss Collins is thoroughly pleased with the results of her work. The key to success in such work she says "is the personal supervision of a resident agent, who is intelligent, honorable and efficient, who can apply the owner's ideas to the habits of the tenants, and whose own mode of life will serve as an object lesson, a man who is worth his rent and \$30 a month besides. Patient attention is also required on the part of the owner. An outlay of thought pays better than an outlay of money. The tenants in my house have improved in character and habits in proportion as they came to take that personal

interest in a lodging which changes it into a home. I can see no change, however, in the rest of the street, but there would be if the police would do their duty." After years of patient observation and thought Miss Collins has come to the conclusion that in the present condition of tenant life, more can be done for the poor with a given sum of money by renovating old tenements than by building new ones, especially if the new ones are built with small yards, and with wells for light and air.

THE "MONROE."

The first of the modern tenement-houses to be built in New York with a view to the health and well-being of the tenants, quite as much as to the property of the landlord, was the six-story building at the southeast corner of Monroe and Corlear streets, numbered 314 to 320 Monroe street, and known as "The Monroe," and erected in 1879 by the Abner Chichester estate as a business investment. It can be said to begin with that the experiment has been a success. Rarely has there been a vacancy in the 40 apartments and six stores for a period longer than three weeks from the time "The Monroe" was ready for occupancy, and the demand for accommodation has been, in general, in excess of the supply. The manager, Mr. W. W. Hulse, says: "If we had been willing to take anyone who came, the house would have been full continually."

The neighborhood, close to the East river, was at the time "The Monroe" was built the headquarters of what was known as the Whyo gang, as evil and desperate a crowd of ruffians as the city has known. Squalid tenements and saloons were on all sides, and many of those who presented themselves for admission to "The Monroe" would have been most undesirable tenants. The locality is now comparatively quiet and respectable, and it is asserted that the improvement has been in some degree to the influence of the large body of quiet, self-respecting tenants gathered under the roof of this model tenement and the good order generally preserved there. No arrest have been made from the building in the past four years. The obvious advantages of the place have usually made a threat of ejectment sufficient to prevent disturbances among the tenants. The number of tenants on whom dispossession warrants have been served has averaged somewhat less than one a year.

It has been stated that stringent rules prevailing in what are known as the city's model tenements cause workmen to seek poorer accommodations at the same price for the sake of the greater freedom. Experience at "The Monroe" is one indication that the statement was not founded on fact.

The rules of "The Monroe" are as follows:

All rents to be paid weekly in advance, Saturday or Monday evenings between 7 and 10 o'clock, to the agent at his rooms in the building.

Tenants desiring at any one time to pay rent for more than a week will be allowed a deduction of ten cents per week on the additional rent so paid.

Tenants not paying in advance will be at once notified to leave.

Tenants will be required to make good any damage arising from their carelessness, and in case of accident to plumbing, glass, etc., immediate notice must be given to the agent, who will have the necessary repairs made at cost of the tenant.

No tenant is permitted to underlet any portion of his apartments, or to take in lodgers.

The attention of tenants is particularly called to the following notices, and they are desired to co-operate with the agent in observing and enforcing them for the comfort and health of all.

1. Before washing windows notify tenant of apartments next below. Plants must be watered within the rooms only.

2. No solid matter shall be thrown into the water pipes. All garbage to be burned and all ashes to be thrown into the ash flues.

3. No dogs shall be kept on the premises. No nails shall be driven in walls or woodwork, except by express permission of the agent.

4. Children are not allowed on the roof, nor to play on the stairs, halls or balconies.

5. Disorderly tenants will not be allowed to remain. The agent is directed to enforce the above regulations and will be liable to be discharged if he neglects to do so.

6. In cold weather keep the wash-rooms warm to prevent accidents to the water pipes. Water must never be left running.

These rules evidently have not interfered with the success of the house, for the average length of tenancy has been between two and three years, above the average tenement-houses. Some of the present occupants have lived there for 10 years, and residence in the house is considered so desirable that applicants look upon admission as a distinction and frequently make unwonted efforts toward personal cleanliness in order to make a good impression on the agent. At present there are 20 American, 19 Irish and six German families in the house, besides single men of various nationalities occupying furnished rooms.

Previous to the erection of The Monroe, the lot, 125 feet on Monroe street by 100 feet on Corlear street, was occupied by

small cheap buildings used for stores and dwellings, concerning which the estate was much troubled with complaints from city officials. In consequence the three executors, Messrs. J. S. Schultz, R. M. Stoebeigh and T. F. Thomas, decided to erect a tenement which would be beyond reproach. Plans suggested by the White tenements on Warren street in Brooklyn were prepared by Field & Son, the alluvial soil was fortified with piles, and the building was erected under the close supervision of the executors at a cost of about \$33,000. The value of building and land together was estimated at \$55,000.

The cellar, with concreted floor, is used for coal and wood bins. Part of the cellar is occupied by a Ryder pumping engine used in forcing the water supply to the top floors, and by the bakery which occupies one of the stores on the ground floor. It is light, dry and well ventilated. The ground floor is occupied by six stores, each, except the corner store having a two-room apartment in the rear. The room next to the stairway on Monroe street is used as the manager's office, where rents are paid and books are kept.

On the five floors above are 25 two-room apartments and 15 three-room apartments, each, with an exception to be noted hereafter, having a private hall. The walls along the main halls are of brick, and concrete has been laid between the floors. The floors of the wash-rooms are concrete, and the wash-room walls are brick.

The feature which forms the most important difference between this house and others of improved designs, notably the Cutting tenements, is the combination of fireproof balconies on each floor, with a fireproof winding stairway in the middle of the Monroe street front. By this system not only is an ideal fire-escape arrangement provided, but the house is relieved from the presence of an interior staircase well, calculated in case of fire to distribute flames and smoke throughout the house, to perform a similar office for infected air in case of contagious disease, or for unpleasant odors from cooking or more dangerous sources in ordinary circumstances.

The stairway is a winding structure of stone steps resting upon masonry and provided with an iron railing. The walls are circular and of brick, with niches for gaslight that is kept burning at night till 10 o'clock. During daytime plenty of light reaches the stairway from the large windows at each landing. The heavy brick walls of the stairway shut it off entirely from the apartments, each of which opens upon halls leading to the balconies. These balconies have stone floors and iron railings and posts. They are kept free at all times and easy of access. When once they were reached from the halls it would be impos-

sible for flames to cut off escape to the street. Three fire escapes lead from each floor to the yard in the rear, and there are two water tanks on the roof.

So great is the confidence of the tenants in the stairway and balconies and in the slow-burning construction of the house, that the occasions when the fire department has been called to the house have created little excitement there. There has never been a fire in the house of sufficient consequence to call for record in the books of the company, the damage being less than \$100, and the cause being the carelessness of the tenants. Aside from the windows, doors, floors, wainscoting and walls subdividing the apartments, no wood has been used in the construction of the house.

The halls are covered with linoleum and the walls are painted, paint having been found preferable to calomine in the long run.

The rooms in the apartments average about 12 by 15 feet in size, and each have one or more windows. There is not a dark room in the house, the structure being but two rooms deep. Each apartment is provided with a wash-room containing sink and stationary tub, and adjoining the wash-room, on the further side from the kitchen, is a water closet and an ash-chute. The apartments are not provided with gas, although one tenant has had fixtures put in at his own expense. The others use kerosene. Each tenant supplies his own stoves. A few of the walls are painted, but most of them are papered.

The exception to the rule that each tenant has his private hall, is found in 10 of the two-room apartments, arranged in groups of four rooms each about one private hall, in order that they may be rented, if so desired, as a single four-room apartment. Families of sufficient means to afford four rooms are rarely found in this neighborhood, however.

The three-room apartments on the corner are particularly desirable, and rent for \$3.50, \$3.40, \$3.30, \$3.10, \$3 a week, according to the floors. Sheathed three-room apartments vary in price from \$3 to \$2.50. The two-room apartments rent from \$2 to \$1.60, according to location. The double sets of two-room apartments, which rent singly for \$2, bring \$3.80 a week when used as four-room apartments. All of the prices are subject to a reduction of 10 cents a week for each week paid in advance. The bakery, using part of the cellar, rents for \$33.33 a month. Two of the stores bring \$25 a month each, one \$15 and the other \$12.

The system of weekly rent days is found to be good. It has helped materially in collecting the rents. Ordinarily, the tenants are not permitted to get more than two weeks behind,

although exceptions are made to the rule in the case of tenants who are thrown out of work and are known to be economical. At the time the material for this report was gathered—the last week in December, 1894—only two tenants were in arrears, each being two weeks behind. The total loss in arrears of rent for 1894, has been approximately \$35, and, although the exact figures are not available, it is stated that this sum is somewhat in excess of the average of the 14 years in which the house has been under the charge of the present manager. The reason that the exact sum can not be given is that the manager has frequently been known to make up arrears out of his own pocket, out of sympathy with tenants who had been unfortunate.

The annual accounts of The Monroe are not kept separately from the accounts of other properties in a large estate, and exact statements of receipts and expenditures are not available, but the net receipts for the year 1893 are stated to have been \$6,000, and the profits in general are said to have averaged more than 7 per cent. on the investment.

The total expense for management and care of the house is \$20 a week, of which \$10 goes to the manager, who spends at least two hours a day there, \$10 and lodging paying for the services of the housekeeper, who acts as agent in the absence of the manager. The only item of current expense, due to advantages in the house, not possessed by ordinary tenements, is the water tax, which amounts to \$180 a year, owing to the fact that each apartment is provided with a water closet. The 24 gas burners, for lighting the stairway and halls and office, and for cooking in the housekeeper's apartments, involve an expense of from \$6 to \$8 a month for gas.

There are now 45 families in the house and a suite of 11 furnished rooms is rented to single men. Ordinarily two-room apartments are not let to families having more than two children, or three-room apartments to families having more than three children. The average population is estimated to be 225. There have been three deaths during the present year, and the average death-rate in previous years has been two per annum. The only fatal accident in this house took place seven years ago, when a child fell from one of the balconies and was killed.

The cleanliness of the house has been one cause for the smallness of the death-rate. Each tenant is responsible for a section of the hallway, being required to sweep it daily and scrub it once a week. It is also required that the apartments be kept reasonably clean. When a tenant leaves, the vacant apartment is thoroughly cleaned before another family moves in. It has been noticeable that the general decency of the surroundings

invariably has a good effect on the habits of newcomers from less orderly houses. The presence of the ash-chutes contributes much to the general effect, doing away with the litter of ashes and garbage usually seen in tenement halls and living rooms. The ash-chutes are about 12 by 12 inches in size, provided with an iron cover of the same dimensions. The tenants occasionally clog the chutes and it is said if these conveniences were to be built over again the chute would be made larger than the opening into it. The executors, however, have never regretted the extra expense of providing this house with ash-chutes.

Mr. James H. Percival, the executor upon whom the management of this portion of the Chichester estate chiefly falls, was asked if he had been pleased with the results of this experiment in tenement-house reform. He responded that he was entirely pleased, looking upon simply as a business investment. He added, however: "A house of this kind built on the most approved principles would be certain to be a complete failure in the hands of an agent of only ordinary ability who would sit in his office uptown and expect to manage the house at long distance. Until we secured the services of our present manager, Mr. Hulse, who has had charge of the house for 14 years, the results were not satisfactory. The work not only requires a man of extraordinary tact, force and energy, but one who will spend part of every day on the premises, and will take as much personal interest in the conduct of the business as if he were one of the owners."

FRIENDLY RENT COLLECTION.

Under the general heading of model tenements, it is proper to refer to some of the methods other than construction which have been effective in raising the moral and sanitary tone of certain parts of New York tenement districts. An experiment of much interest concerned the dwellings at 36 and 38 Cherry street. There were sixteen distinct houses here running in from Cherry street and known as "Double and Single alley." Mr. R. Fulton Cutting in an interview tells what was done with these houses and their tenants, as follows:

"Just before the passage, in 1880, of the latest amendments to the Tenement-House Act, in investigating certain instances of disregard of law, I was shown these buildings by Mr. Jacob A. Riis, as notable examples of flagrant dereliction. The dwellings were all Mr. Riis had pictured them, being filthy and out of repair, while the air smelted as if it had been imprisoned in the alley since the days of the cholera. The banisters were all broken and rickety, the stairs dangerous and a receptacle for all sorts of rubbish. The shutters had long since been consumed for

fire wood, but they really seemed superfluous, as the sun rarely penetrated the windows, and the tenants looked as if they neither washed or changed their garments and did not need shelter from observation. In some of the rooms ashes and rubbish were simply heaped in a corner until the accumulation encroached seriously upon the floor space, when a portion was removed and the practice continued. Garbage was thrown carelessly into the alleys.

"Naturally the financial returns were not considerable, and so evil had become the reputation of the locality that out of 128 tenements only 63 were occupied, and the collection of rents from these was no easy task. Yet the owners were by no means indifferent to the condition of the property and their tenants. The property itself belonged to an estate, the heirs of which were residing in Chicago. They were quite ready to take any measures that seemed hopeful to restore the character of the locality, and had on several occasions expended large sums in repairs and improvements. Their agent, who had charge of the buildings from the time of their erection, was by no means an unkindly or grasping person, but simply a business man who had not time to acquaint himself with the personality of his tenants, or to meet them in any way except as a rent collector. As his visits to the property were only made in the latter capacity, he was not welcome. Altogether, from every point of view, commercially or humanitarian, the property was an utter failure, but the owners had no alternative except to pursue their original policy with reference to its management.

"Three gentlemen interested in the housing of the working classes, recognizing in this unusually large ownership of tenements a peculiar opportunity for proper management, secured them by lease from the owners, paying the latter the actual amount of net income derived from them during the preceding year. The lessees immediately placed in charge of the buildings a lady who had on her own responsibility begun with a single house to pursue the principles of tenement-house management originated by Miss Octavia Hill, in London. Mrs. E. F. Miles, the new agent, was a woman of fine physique and dauntless courage, and at the same time wise and sympathetic. Establishing an office in one of the vacant tenements, she spent every day from the early morning until late in the afternoon in the alleys visiting the tenants and making their acquaintance. She at once put in force certain rigid rules of hygiene and decency, and won her way to their acceptance by the tenants with extraordinary celerity. In a few months she had inspired among them a respect for her authority that no man could have won in as many years. She soon came to be regarded as something more than a

mere rent collector; for while she insisted upon the weekly payment her kindness and wisdom induced rather than compelled obedience. Yet there was no element of charity or pauperizing associated with her management. She did not give alms nor did she permit, after reasonable consideration, the occupancy of tenements by those who did not pay their rent.

"The character of the property and its tenants began to improve with the inception of her management. The repairs and improvements which had been made to the buildings with the new lease were neither disfigured nor destroyed. The practice of taking night boarders, which had been one of the greatest evils of the old management, was promptly abolished. The halls and staircases were regularly cleaned and kept clean by the tenants, and the garbage and ashes were properly separated and placed in receptacles prepared for them. The police speedily recognized the change of affairs, and Gotham Court ceased to appear as of old times upon the records of the Oak street station. Even the "House of Blazes," as the most viciously tenanted dwelling in the row was familiarly called, became quite a respectable house. In time the property gained a good reputation, tenants flocked in, and the rent-roll began to assume some importance.

"At the expiration of the lease, Mrs. Miles before that having removed from New York, and her place having been occupied efficiently by Miss Dow, the owners of the property were so gratified by the success of the undertaking that they themselves secured the services of Miss Dow as their agent. She, too, after a while left to take a more important situation, and her place was filled by a successor whom she herself suggested, Mrs. Wheeler, who remained the agent until the expiration of the lease on the first of May last.

"The commercial importance of the enterprise is best indicated by the following figures:

"When the property was first leased, the amount paid the owners was \$3,240 per year. Since it has been managed upon the principles above described, it has brought them an average of about \$5,300 per annum. The year ending January 1, 1892, showed a net return of \$5,650, this, of course, exclusive of the agent's salary, which is charged as before to the operating expense. Capitalized at 5 per cent., this increase for the year 1892 of \$2,410 is equivalent to the handsome sum of \$48,200, which is the actual value added to the property by the system of management introduced by the gentlemen who originally leased it.

"It is worthy of remark that there is no rack-renting of tenements in these buildings, the average rent being probably lower

than can be found in any similar tenements in New York, the two-room apartments, into which the buildings are divided, renting for not more than \$4.50 per month. One further feature of the enterprise must be noted, and that is that the general cleanliness of the property and the improvement in the habits of the tenants have produced a most beneficial effect upon their health. I believe there has been hardly a single year since 1880 in which the death-rate in Gotham Court has not been less than the average of the entire city, and that in a section where the rate is particularly high."

EDWARD MARSHALL

SUPPLEMENT No. 3

Report on School Attendance, Educational Opportunities and Home Life of Children.

December 26, 1894.

RICHARD WATSON GILDER, *Chairman Tenement-House Committee:*

Dear Sir.—I have the honor to submit herewith a report upon the school attendance, educational opportunities and home life of the children of the more crowded tenement districts of this city, the investigation of these subjects having been intrusted, by the committee, to the University Department of Sociology of Columbia College, under my direction.

The committee desired information on the following points, namely:

1. To what extent are the tenement-house children of legal school age, and especially those of foreign nationality, actually attending school?

2. To what extent are these children forced by their parents into money-earning occupations?

3. What extent are they kept at home or allowed to wander the streets?

4. Are the school accommodations adequate; are the school buildings fit for their purpose, especially in respect of light and ventilation; and are the methods of instruction commendable?

5. Is there need especially of additional kindergarten provision for small children?

6. Has the department of education devised any adequate means of keeping track of the school population of this city, enforcing the compulsory education laws and preventing truancy?

7. In general what are the conditions of child life and nurture in the tenement-house districts?

In the brief time allowed for this investigation only a superficial and worthless inquiry could have been made if we had attempted to extend it over the whole city. It was decided, therefore, to make a study as nearly as possible exhaustive of the school population of four typical tenement blocks, containing at least 1,000 families. In the selection of these blocks regard was

had to the following conditions: They should be solidly built up with tenement-houses, unbroken or little broken by business structures. They should be in different parts of the city. The population of each block should be as homogeneous as possible. Accordingly, the following blocks were chosen: Two blocks on Mott and Mulberry streets, between Prince and Spring streets, occupied by Italians; a block bounded by Hester, Allen, Canal and Eldridge streets, occupied by Russian Jews; a block bounded by Seventy-third street, Avenue A, Seventy-second street and First avenue, occupied by Bohemians.

A schedule of questions was prepared which called for information as to the nationality and occupation of the head of the family; the name, sex and age of each child; whether the child was at school, and if so, where;* whether at work, and if so, where and what at; whether at home or idle.

Twenty-four university students, all of them mature men, with experience as teachers or as visitors among the poor, in charity, mission or university settlement-work, were selected to make the enumeration. As the whole value of a statistical investigation depends on the intelligence with which the fundamental work of asking the questions is conducted, it is proper to say that the conclusions herewith presented are entitled to the confidence that is due to the work of men who were peculiarly well qualified to get exactly the information desired. The detailed supervision of the enumeration was entrusted to Mr. John F. Crowell, fellow in sociology, and formerly president of Trinity College, North Carolina, to whose intelligence and fidelity I am under the greatest obligations.

The facts obtained by the enumerators were tabulated in the statistical laboratory of the university, under the direction of Professor Mayo-Smith, who last year tabulated the police census of the unemployed. Professor Mayo-Smith's report of results is as follows:

REPORT ON SCHOOL ATTENDANCE AND EMPLOYMENT OF CHILDREN.

The legal school age is from 8 to 13, both inclusive; but a further classification was made of children 3 to 5, and of children 6 and 7, many of whom are at school, or in kindergartens. The reports of the parents in regard to children at school were verified by comparison with the school rolls. For the children at work, inquiry was made as to the kind of work; the nationality and occupations of the parents was also determined. The facts in regard to school attendance are given in the following tables:

* This refers to both public and private schools.

**BLOCK No. 1.—BOUNDED BY PRINCE, ELIZABETH, SPRING
AND MOTT STREETS.**

Principally Italians.

Total number of families returned 355
Families without children, or with children 21 and over.. 92
Families with children under 21..... 263

MALES.	Under 8 years.	8 to 5 years.	6 and 7 years.	Under 8 years.	8 to 13 years.	14 years and over.	Total.
At school .....	....	25	20	54	97	10	161
At work .....	....	....	....	....	6	50	56
At home	73	40	....	113	2	7	122
Total males...	73	65	29	167	105	67	339
FEMALES.							
At school .....	....	19	35	54	76	9	139
At work .....	....	....	....	....	9	43	52
At home	83	50	5	138	6	21	165
Total females .	83	69	40	192	91	73	356
Total both sexes.	156	134	69	359	196	140	695

Out of 196 children of legal school age, only 23 are reported to be at work or at home. There is a larger number under 8 also attending school.

**BLOCK No. 2.—BOUNDED BY MOTT, SPRING, MULBERRY
AND PRINCE STREETS.**

Principally Italians.

Total number of families returned	367
Families without children, or with children above 21.....	61
Families with children under 21.....	306

MALES.	Under 3 years.	3 to 5 years.	6 and 7 years.	Under 8 years.	8 to 13 years.	14 years and over.	Total.
At school .....	....	25	38	63	93	23	179
At work .....	....	....	....	....	5	75	80
At home	82	46	2	130	8	7	145
Total males...	82	71	40	193	106	105	404
FEMALES.							
At school .....	....	40	48	88	95	7	190
At work .....	....	....	....	....	....	59	59
At home	87	43	5	135	14	18	167
Total females .	87	83	53	223	109	84	416
Total both sexes.	169	154	93	416	215	189	820

Out of 215 children of school age, only 27 are reported as at work or at home.

**BLOCK No. 3.—BOUNDED BY ALLEN, CANAL, HESTER
AND ELDRIDGE STREETS.**

Principally Russian.

Total number of families returned	268
Families without children, or with children 21 years and over	33
Families with children under 21	235

MALES.	Under 8 years.	3 to 5 years.	6 and 7 years.	Under 8 years.	8 to 13 years.	14 years and over.	Total.
At school .....	....	1	33	34	113	18	165
At work .....	....	....	....	....	2	79	81
At home	72	73	19	164	7	7	178
Total males...	72	74	52	198	122	104	424
FEMALES.							
At school .....	....	3	35	38	97	18	153
At work .....	....	....	....	....	3	85	88
At home	64	53	14	131	3	17	151
Total females.	64	56	49	169	103	120	392
Total both sexes.	136	130	101	367	225	224	816

Out of 225 children of school age, only 15 are reported at work or at home.

**BLOCK No. 4.—BOUNDED BY SEVENTY-THIRD STREET,
FIRST AVENUE, AVENUE A AND SEVENTY-SECOND
STREET.**

Principally Bohemians.

Total number of families returned	662
Families without children, or with children 21 years and over	131
Families with children under 21	531

MALES.	Under 3 years.	3 to 5 years.	6 and 7 years.	Under 8 years.	8 to 13 years.	14 years and over.	Total.
At school .....	....	9	60	69	169	17	255
At work .....	...	....	....	....	1	101	102
At home	165	126	28	319	6	11	336
Total males...	165	135	88	388	176	129	693
FEMALES.							
At school .....	....	13	65	78	164	11	253
At work .....	....	....	....	....	3	105	108
At home	145	117	20	282	11	37	330
Total females .	145	130	85	360	178	153	691
Total both sexes.	310	265	173	748	354	282	1,384

Out of 354 children of school age, only 21 are reported at work
or at home.

TOTAL FOR FOUR BLOCKS.

Total number of families returned.....	1,652
Families without children, or with children 21 years or age and over	317
Families with children under 21 years.....	1,335

MALES.	Under 3 years.	3 to 5 years.	6 and 7 years.	Under 8 years.	8 to 13 years.	14 years and over.	Total.
At school .....	....	60	160	220	472	68	760
At work .....	....	....	....	....	14	305	319
At home	392	285	49	726	23	32	781
Total males...	392	345	209	946	509	405	1,860
FEMALES.							
At school .....	....	75	183	258	432	45	735
At work .....	....	....	....	....	15	292	307
At home	379	263	44	686	34	93	813
Total females .	379	338	227	944	481	430	1,855
Total both sexes.	771	683	436	1,890	990	835	3,715

It will be observed that of 990 children of legal school age only 14 males and 15 females are reported to be at work, or 29 in all. Besides these there were 23 males and 34 females at home, on account of sickness, poverty or of alleged inability to get into school. That is to say, only 86 children out of 990 of school age are not at school. This is less than 10 per cent. Besides these, out of 944 children below the school age, 478, or almost exactly one-half, were at school.

In order to guard against possible representation that children of school age were 14 years old, the exact number of children returned as 14 years of age was ascertained to be 151. This seems to be about the right proportion in 3,715 children.

In regard to the children at work, we find a total of 626 children at work, by far the larger number of the age of 14 or over.

The following table will show some of the principal occupations in which children; that is, persons under the age of 21, are at work:

TABLE.
Occupation of Children.

OCCUPATION.	BLOCK.				Total.
	1	2	3	4	
Cigar and cigarette makers:					
Males.....	1	....	5	27	33
Females	1	....	3	73	77
Total	2	....	8	100	110
Cloakmakers, tailors, etc.:					
Males.....	7	6	29	1	43
Females	30	42	49	18	139
Total	37	48	78	19	182
Messengers, office boys, peddlers, bootblacks, musicians, etc.:					
Males.....	14	25	16	8	63
Females	1	....	1	....	2
Total	15	25	17	8	65
Trades and mechanical occupations:					
Males.....	6	12	7	22	47
Females	1	....	....	....	1
Total	7	12	7	22	48
Factory hands:					
Males.....	2	10	3	20	35
Females	11	9	17	6	43
Total	13	19	20	26	78
Stores — general:					
Males.....	11	13	16	15	55
Females	4	8	10	10	32
Total	15	21	26	25	87

The following table shows, by nationality of the parents, whether the children are at school, at work, or at home, by ages:

NATIONALITY AND CONDITION OF CHILDREN.

	AT SCHOOL.			AT WORK.			AT HOME.			Total.
	Under 8 years.	8 to 13 years.	14 years and over.	Under 8 years.	8 to 13 years.	14 years and over.	Under 8 years.	8 to 13 years.	14 years and over.	
Italian:										
Block 1	97	141	12	....	15	65	222	8	21	581
Block 2	138	158	23	....	5	85	231	17	22	679
Block 3 .....	....	....	....	....	....	....	....	....	....	....
Block 4 .....	....	....	....	....	....	....	....	....	....	....
Total	235	299	35	....	20	150	453	25	43	1,260
Russian:										
Block 1 .....	....	1	....	....	....	2	....	....	....	3
Block 2 .....	....	....	....	....	....	....	....	....	....	....
Block 3	64	176	32	....	5	137	263	10	18	705
Block 4	2	3	....	....	....	....	3	....	....	8
Total	66	180	32	....	5	139	266	10	18	716
Bohemian:										
Block 1 .....	....	....	....	....	....	....	....	....	....	....
Block 2 .....	....	....	....	....	....	....	3	....	....	3
Block 3 .....	....	....	....	....	....	....	....	....	....	....
Block 4	106	236	18	....	5	170	441	16	28	1,022
Total	108	236	18	....	5	170	444	16	28	1,025
Irish:										
Block 1	4	12	5	....	....	13	6	1	6	47
Block 2	8	29	3	....	....	36	17	1	1	95
Block 3 .....	....	....	....	....	....	....	....	....	....	....
Block 4	3	12	4	....	....	10	12	....	7	48
Total	15	53	12	....	....	59	35	2	14	190
American:										
Block 1	5	13	1	....	....	7	18	....	....	44
Block 2	3	8	1	....	....	2	15	....	1	30
Block 3	1	....	....	....	....	....	5	....	....	6
Block 4	5	13	....	....	....	....	24	1	2	45
Total	14	34	2	....	....	9	62	1	3	125

NATIONALITY AND CONDITION OF CHILDREN — (*Concluded*).

	AT SCHOOL.			AT WORK.			AT HOME.			Total.
	Under 8 years.	8 to 13 years.	14 years and over.	Under 8 years.	8 to 13 years.	14 years and over.	Under 8 years.	8 to 13 years.	14 years and over.	
Germans:										
Block 1 .....	.....	1	1	.....	.....	1	2	.....	2	7
Block 2 .....	.....	2	.....	.....	.....	4	1	.....	.....	7
Block 3	4	14	.....	.....	.....	11	10	.....	5	44
Block 4	23	49	4	.....	.....	17	83	2	7	185
Total	27	66	5	.....	.....	33	96	2	14	243

In the following table some of the principal occupations represented by the heads of the families are taken out and the condition of the children, whether at school, at work or at home, is given. The other occupations were so scattering that it was found useless to tabulate them.

TABLE.
Occupation of Head of Family and Condition of Children.

	AT SCHOOL.			AT WORK.			AT HOME.			Total.
	Under 8 years.	8 to 13 years.	14 years and over.	Under 8 years.	8 to 13 years.	14 years and over.	Under 8 years.	8 to 13 years.	14 years and over.	
Cloakmakers, tailors, etc.:										
Block 1.....	7	13	2	....	4	14	31	1	3	75
Block 2.....	13	21	7	....	....	15	33	2	1	92
Block 3.....	27	69	11	....	1	49	121	2	8	288
Block 4.....	11	28	....	....	1	15	44	....	3	102
Total.....	58	131	20	....	6	93	229	5	15	557
Cigar and cigarette makers:										
Block 1.....	....	....	....	....	....	....	2	....	....	2
Block 2.....	4	1	....	....	....	4	4	....	....	13
Block 3.....	....	2	2	....	....	3	1	....	....	8
Block 4.....	62	141	10	....	1	111	246	9	14	594
Total.....	66	144	12	....	1	118	253	9	14	617

Laborers:

Block 1.....	24	38	2	....	5	17	56	5	....	147
Block 2.....	23	38	3	....	....	23	37	1	5	130
Block 3.....	....	3	....	....	....	2	2	....	1	8
Block 4.....	6	13	2	....	....	9	22	....	4	56
Total.....	53	92	7	....	5	51	117	6	10	341
Peddlers, bootblacks, fruit dealers, musicians, etc.:										
Block 1.....	34	48	3	....	....	15	68	8	7	178
Block 2.....	29	32	2	....	....	14	46	2	2	127
Block 3.....	19	35	4	....	2	36	43	4	5	148
Block 4.....	4	6	....	....	....	2	3	....	1	16
Total.....	86	121	9	....	2	67	160	9	15	469

Storekeepers:

Block 1.....	6	10	1	....	....	3	22	....	....	42
Block 2.....	13	15	4	....	1	8	26	2	4	73
Block 3.....	9	31	7	....	....	17	33	2	4	103
Block 4.....	9	30	4	....	....	12	23	2	10	90
Total.....	37	86	16	....	1	40	104	6	18	308
At trades and mechanical occupations:										
Block 1.....	13	28	8	....	1	22	26	8	4	105
Block 2.....	17	22	1	....	....	12	29	5	2	88
Block 3.....	7	24	3	....	....	25	47	1	1	108
Block 4.....	32	43	8	....	1	25	113	1	3	226
Total.....	69	117	20	....	2	84	215	10	10	527

CONDITIONS OF LIFE.

The general conditions of life surrounding the children above enumerated are indicated in the following brief special reports and memoranda, submitted by individual enumerators:

A.

I found the following conditions:

Closed street door, one case out of ten.

Lot with three houses, one out of six.

One frame house, rear, out of ten visited.

Rooms mostly well lighted, though the rear rooms were lighted through the front ones.

Bare floors the rule.

In the poorer houses were Italians with only occasional families of other nationality; in the better ones the other nationalities predominated, with a sprinkling of Italians.

Children generally speak good English.

Marriage among Italians early; shown (1) by young mothers; (2) by cases of two boys, ages 18 and 19, respectively, already married, and one girl of 18 just about to be married.

Occasional light-haired, light-eyed, pure Italians.

Several cases of old persons living idle and in comfortable quarters.

Many out of work, some for many months.

One Italian had his naturalization paper framed, on the wall; had a large family, most of them at school; no young children at work.

It was hard to get the definite address of children's working places, rather from ignorance than desire to conceal.

Not many children seen on the streets or around the houses during schools hours; those at home were mostly girls, helping about the house.

B.

The Italians, as a rule, I found to be dirty and regardless of sanitary laws. In many cases the floors of their rooms were strewn with garbage, and in one instance the hallway also was in this condition. Neatness in an Italian room was an exception. Their personal appearance and also that of their children is slovenly. They are good-natured and happy and do not seem to be deceitful. They are very curious, however, and easily excited. (In one house I found a woman who treated her children cruelly—using a leather "cat-of-nine-tails" upon them. This was an exception—I think as a general thing they treat their children kindly.)

I found many families where the wife must have been married at a very early age. Often the wife takes in sewing. I seldom found the husband in the room (except at dinner). Once, however, I interrupted a friendly game of poker.

As a class they seem to be ignorant—very rarely even the older people speak any English—or even write their own name. I should say that the Italians who occupy the rear tenements were a grade lower than those who live in the street tenement, but those who live by “rag-picking” are the lowest of all; their quarters are usually in the cellar or basement.

The few Irish families I visited I found to be cleaner and in better circumstances generally than the Italians. Several times I found an old couple who were living on their “income.” I found no Irish in the rear tenements. They were not so good-natured as the Italians.

As a rule, the halls of the tenements were clean, but not always well lighted. In every case I found the front door unlocked. Mr. Riis says that a “locked front door” is a sure sign of respectability.

During school hours I found few children on the street who were old enough to go to school. Several times I tried to get some of the small boys to act as interpreters instead of going to school, but I was successful only once.

Twice I was called back to correct a child's age, the mother wishing me to put down 16 years instead of 15, which she first gave me.

C.

Having never had an opportunity of coming into personal contact with Italians, my estimate of them was such as is current in northern New England; I expected to find them among the lowest and most suspicious of our population. Their condition, as a whole, I found better than I expected; and they were much readier to give information and less suspicious than either the Germans or Irish who were in the district. They seem to me a much better class of people than the Canadians found in manufacturing places in Maine.

From 203-217 nearly all were Italians. Of these, I believe, only one family had been here more than 10 years. This one consisted of a man, wife and one child. The women said that both her husband and herself had been born in America. She seemed very intelligent and progressive. At the time I called she was engaged in making macaroni.

In nearly all of the main rooms in No. 217, the people were engaged in making clothes. The ground floor was occupied by a saloon.

D.

With one or two exceptions the rooms were tidy and not very dirty. The people were very willing to answer the questions. Few of the children were found at home, and of the 30 or more families visited, only two men were seen. I went from 12 to 4 p. m. on Saturday.

Almost all families contained children at school, and only five or six aged people were seen.

E.

I visited a total of 93 families, located on Spring, Elizabeth and Mulberry streets.

Only one house was in very bad condition; most of them were in fair condition. Children from 5 to 13 were usually reported in school. Those above that age were seldom so reported, but very often Italian children 3 and 4 years of age were reported in school. I judge from results obtained in visiting several schools, and from questioning the children in the streets, that a large number of those reported in school either did not attend school or were very irregular in their attendance. The families visited usually had but two rooms each, unless two families lived together. Rooms were dirty and poorly furnished, but there were several exceptions to this rule; occasionally there would be a room unusually well furnished and neatly kept.

A considerable number of the families visited had no children. Quite often the head of the family was out of work, and had been so for a long time.

It was not uncommon to find that a family had rented the use of their rooms during the day to other Italians, who were making men's clothes, the family in the meantime using the same rooms for their household duties. In some cases the children who attended school on school days helped the remainder of the family on Saturday in making artificial flowers, or like work. Good treatment and ready responses to my questions were nearly always rendered.

F.

I have been working chiefly among Bohemians, on the block between Seventy-second and Seventy-third streets, and between First avenue and Avenue A.

Though I have found only one house which was in a very bad condition, I think that the majority of the houses, especially in Seventy-third street, could be better. Some houses in Seventy-second street and on First avenue are good. The families occupy

three or four rooms; large enough, provided the family is not too numerous.

The dirty and disordered condition of the rooms, found in many cases, I explain either by the misery of the people or by the fact that the mother of the family works throughout the day in a factory and can not, of course, fulfill all her household duties. But in other places everything is clean and neat. The majority of the Bohemian people are working in cigar factories. Many boys and girls are working in cigar factories, as their parents do. The fact already mentioned, that even the mothers of the families are working in cigar factories, is worth noticing, because it can hardly be found to such an extent among other nationalities. There can be no doubt that the influence is bad and demoralizing for the family. The household is not properly cared for; the children have no real family life, if they have no grandmother, some other old woman takes care of them. It is not uncommon to find a husband cleaning the rooms, cooking, washing dishes, minding children, etc., while his wife is working in a factory.

The worst thing I have seen during my visitations, was the so-called "cigar-house work." There are certain houses, belonging to the proprietors of cigar factories, in which the inhabitants instead of going to the factory, do their cigar work at home. I can not describe the condition of the people making the cigars in the same room in which they live, cook and eat their meals and sleep. Yet they have to pay for three small dirty rooms \$11 or \$12 monthly.

I found several cases, where the heads of the families and other adult members were unemployed, others again, who earn \$3 to \$5 a week, and I found only a very few, who said that they have work enough and earn enough. Some expressed even their fear that their condition will be harder this winter than it was last winter, if they do not get work very soon.

Generally the Bohemians send their children to school very diligently. I have found several cases, where the children did not go to school, because they could not find room there. The parents denounced the fact, that there are not schools enough in the overcrowded tenement districts.

SCHOOLS AND SCHOOL BUILDINGS.

The investigation of schools and school buildings was put in charge of Mr. Crowell with particular instructions to ascertain whether the severe condemnation by Mr. Jacob A. Riis, recently published, was borne out by the facts. Mr. Crowell reports as follows:

December 21, 1894.

Prof. F. H. GIDDINGS, *Columbia College, New York, N. Y.*:

Dear Sir.—In response to your request to have an inquiry made into the conditions of public school buildings, with particular reference to ventilation, light and sanitary conditions, including also the matter of crowding, I beg to submit for your consideration the within reports made by Messrs. Ufford, Course and Hall, of the Department of Sociology, after consultation with me as to the method and lines of inquiry to be followed uniformly in the inquiry.

My own observations tend to confirm the charges made by Mr. Riis in their main features. While the general fidelity of the teaching force is to be commended, the whole order of things strikes one as being in the control of a grossly incompetent set of outside officials, at whose mercy the system is cramped and tortured into a low degree of educational efficiency.

Yours cordially,

JOHN FRANKLIN CROWELL.

SCHOOL REPORT.

A. C. Hall.

1. How many scholars will building accommodate?

(New) No. 72 Christie street school.....	2,200
No. 42, Allen street school.....	1,444
No. 75, Norfolk street school.....	1,120

2. Daily average attendance:

New Christie street school about 96 per cent. on Friday, the worst day of week.

No. 42, Allen street school, 1,401 on Friday.

No. 75, Norfolk street school, about 1,100

3. Number on waiting list:

New Christie street school, 300 to 400, primary department.

No. 42, Allen street school, 441 refused admittance,* and about 200 more dismissed.

No. 75, Norfolk street school, about 100.

4. Playgrounds:

New Christie street school, large indoor basements and smaller outdoor yards.

No. 42, Allen street school, dark basement; small yard.

No. 75, Norfolk street school, dark basement; small yard.

5. Light and ventilation (school-rooms):

New Christie street school, most excellent.

No. 42, Allen street school, one-fourth the rooms distinctly bad.

No. 75, Norfolk street school, one-fourth the rooms distinctly bad.

PLAYGROUNDS.

New Christie Street School.

The children are sent down in comparatively small squads and each has about seven minutes' play (total time, 15 minutes).

A fruit seller's stand allowed in basement playroom.

No. 42, Allen street school.

The water-closets in boys' yard were in very bad order. The flushing apparatus did not work well. An accumulation of filth in several closets. No paper provided in holders which were supplied.

Bad smelling place.

The primary grade children had about 10 minutes for play; upper grade, none.

No. 75, Norfolk street school.

The girls' basement playroom small, but well lighted. All girls have to pass into the school from playroom through open passage exposed to rain, snow and cold. Passage has narrow roof, but no sides.

The boys' basement is very dark. Teacher said, during drill, she could not distinguish one boy from another.

* Number turned away or dismissed on account of introduction of new desks, during September, October, November and half of December: 193 girls and 243 boys refused admission; about 300 more dismissed on account of desks.

LIGHT AND VENTILATION.

New Christie school.

Large windows in all rooms, with transoms for ventilation (if necessary), and Japanese blinds to regulate sunlight. Fresh air is continually forced through the building, drawn in through six large flues opening on street (all sides of building), automatic arrangements. Very good.

No. 42, Allen street school.

The annex, containing many school-rooms, has no gas. Many of the rooms are most imperfectly lighted. Our visit was upon a very bright day, between 10 and 11 a. m., yet in some of the rooms there was but little more than early twilight.

Room 4, first floor, annex, was particularly dismal. It has several windows, but all close to brick walls. Little beside oral work can be done in this room, and for writing, etc., two classes use the room opposite — taking turns in the dark room. A number of the other school-rooms in annex and in new building were very dark and ill-ventilated, also. Gas has always to be used on dark days (main building) and the gas jets are high up and few in number.

Ventilation is entirely by open windows and doors, creating, often, bad draughts, unless bad air is chosen instead. Some of the teachers' voices were affected.

No. 75, Norfolk street school.

Much the same condition of school-rooms as in No. 42, but some gas-jets in all the rooms.

No. 3, fifth grade, but one window — dim light (on very bright day), in rear of room particularly bad.

No. 4, sixth grade, was equally bad.

No. 5, fourth grade, was in same condition.

In another room the single (?) window was close up to elevator track. This window had to be kept partly open for ventilation; imagine the noise, etc.

Ventilation in all rooms by opening windows — foul air noticeable in some. Both in No. 42 and 75 were rooms separated by thin partitions only.

In No. 42, Allen street school, there were but 37 Christians, out of 1,401 scholars, the rest being mostly Jews. All were being taught a Christmas carol, with allusion to the Trinity.

Of scholars in attendance, 239 boys and 255 girls lived nearer other schools.

The per cent. of absence is exceedingly small, less than 2 per cent. a month. Children absent for a few days forfeit their seats to others.

In the Norfolk street school, out of total list of 1,120 children, not more than 20 were absent each day.

Classes very large for a single teacher to manage. Children were coming in every day to apply for admission. The parents say, "Anything to keep them off the street," and seem to think not at all of probable injury to eyesight in dark school-rooms.

The schools of this tenth ward are apparently under the thumb of a politician. Improvements easily made, he will not have attended to.

EAST SIDE.

1. How many scholars will building accomodate?

Grammar school No. 70, Seventy-fifth street, between Second and Third avenues, grammar, 1,080; primary, 1,400.

Grammar school No. 76, Sixty-seventh street and Lexington avenue, grammar, 800; primary, 1,200.

Grammar school No. 82, Seventieth street and First avenue, primary, 1,140.

2. Daily average attendance.

Grammar school No. 70, grammar, 840; primary, 1,350.

Grammar school No. 76, primary, 934; on registry, 1,030.

Grammar school No. 82, primary, 1,120, on a rainy day.

3. Number on waiting list.

Grammar school No. 70, grammar, 28; primary, large number.

Grammar school No. 76, no waiting list; plenty of room.

Grammar school No. 82, primary, 300.

4. Playgrounds.

Grammar school No. 70, large dark basement and small yard.

Grammar school No. 76, sunny basement, etc.

Grammar school No. 82, basement, etc.

5. Light and ventilation.

Grammar school No. 70. Grammar school-rooms well lighted with an exception; two primary school-rooms in basement; gas all the time.

Grammar school No. 76. Rooms all well lighted and ventilated.

Grammar school No. 82. Almost all the rooms well lighted and ventilated.

Primary department, grammar school No. 70.

The main hall where principal, Miss Hall, sat, was divided by small screens (about four feet high) into five class spaces. About 40 to 50 small girls or boys in each class. Central class had almost no light. Teaching must be very difficult with five teachers talking in the same room.

The two basement rooms were utterly unfit for school purposes (though not as bad as some in tenth ward).

Still on a bright sunny morning the gas was well lighted in one room and there was but twilight in the other. Ceilings low; all ventilation in this school by lowering windows.

The scholars east of Third avenue are crowded 75 children to a teacher in primary departments and many children refused admission every month. Several new schools have been erected during recent years without relieving the pressure. A new school (about Eightieth street) will be opened in a few weeks, but Miss Hall (principal of primary department, grammar school No. 70, Seventy-fifth street), thinks she will not be relieved of more than 50 children and perhaps not those. (See page 164, Light and Ventilation.)

Children from street come in and fill all places vacated.

On the other hand, schools between Sixtieth and Seventieth streets, just west of Third avenue, have room to spare and are in good condition. East side parents refuse to send their children to these schools because cable tracks have to be crossed; the schools are inconvenient, so far as returning home for lunch or dinner at noon, and also parents feel their children are not stylish enough to be admitted to these schools.

I am assured by the principal of primary department, grammar school No. 76 (Lexington avenue and Sixty-seventh street), that any clean child will be admitted there, as also will dirty new arrivals, after being sent home to be scrubbed. But the fact remains that east side people will not send their children west of Third avenue, if they can help it, and will apply time and again at the nearest schools, threatening principals with appeals to "board of health" (fact) if the child is referred to another school. The different nationalities select different schools. You find colonies of school children — Bohemians, Germans, etc., much as you find colonies of families in different parts of New York city. There seem to be enough schools on the east side to meet present demands if only the children were divided proportionately among the schools. However, this deduction is based upon only three schools visited and information given by teachers as to six other schools.

SCHOOL REPORT BY F. M. CORSE.

The following named schools have been visited by me, and I submit herewith the following brief report:

"Old Christie," on Christie street.

"Essex Market."

Hester and Allen, 42.

Hester and Christie.

In the first three named schools the ventilation is obtained through the windows, subjecting the children and teachers in cold weather to dangerous draughts; and many of the rooms on the first and second floors of these buildings are dependent on artificial light, especially in cloudy weather. This last objection would not be made if the light in the rooms was evenly distributed, and the pupils could see the blackboard from all parts of the room. But the fact that so much of the instruction is given from the blackboards renders ample light necessary. In many of the rooms at Hester and Allen, 42, the pupils can not see to read ordinary print at midday, and these rooms are not provided with artificial light. The sanitation about this building was in a very bad condition.

There was in none of the schools any evidence of crowding the rooms beyond the legal regulations, but the seating capacity of the first three schools was very imperfect. In some instances three and four pupils are seated at one desk and on one bench, crowded together as closely as they could sit. In all the schools there was a large "waiting" list, which showed that a large number of children in the vicinity of these schools were unable to attend any school. The Hester and Allen, 42, alone had turned away 441 children since the beginning of the present school year.

While in the new school building, Hester and Christie, No. 7, there is ample light and space for those attending; one grave abuse is conspicuous, namely, the assigning to many of the teachers from 60 to 75 children as a constant charge.

The grave external defects of the schools, however, do not strike one so forcibly, as the splendid organization of the teaching force, the earnest attention given to the instruction of those children, and the successful attempt on the part of the teachers to use the facilities at hand to the best possible advantage.

"Old Christie" and "Essex Market," were visited December 14th, and Hester and Allen, 42, and Hester and Christie, No. 7, were visited December 17th.

(Signed.)

F. M. CORSE.

December 20, 1894.

REPORT OF VISITS TO SCHOOLS NOS. 7, 42 AND 75, BY
W. S. UFFORD.

Number 7. Number 7 is situated on Christie street, corner of Hester. There are three departments—boys' grammar, girls' grammar and primary. The enrollment of the school is in round numbers, 2,400. The building is new and attractive. The grammar grades possess ample accommodations. The primary department is obliged to occupy several rooms belonging to the grammar department—rooms which will soon be needed by that department. The primary department is also compelled to utilize what is known as the Essex Market school. Notwithstanding this expansion, applicants for admission are continually turned away for lack of accommodation.

Want of space is seen, too, in the size of the classes in the primary grades, many of them reaching the limit set by the board, viz., 75. Regard for the individuality of the pupil as well as close personal relation between teacher and scholar are thus sacrificed. This is the more to be regretted since the vast majority of the pupils are of foreign parentage. The teachers are the one strong Americanizing and civilizing force in the lives of the scholars.

Both light and ventilation are good.

Lack of proper playground facilities is seen in the fact that there is practically no yard space, and the children must be sent in divisions to the basement for their recess. A playground might have been furnished upon the roof, except for the balancing of economy against fresh air and sunlight.

Number 42. School number 42 is situated on Allen street, near Hester.

The class-rooms, especially in the primary department, are filled to overflowing. The school records show that 441 applicants for admission have been refused since September. Five children are frequently obliged to sit on benches intended only for four. In one room the door could be but partially opened because of the desk crowded against it.

There are no proper wardrobe accommodations and the scholars are obliged to hang their coats and hats about the walls of the rooms. Often these garments are "skied" in order to make a place for the desks which hug the walls on three sides. Even this arrangement seems preferable to the wardrobe accommodations which are so cramped that on wet days masses of clothing must be left steaming with dampness.

The eagerness of the scholars to acquire is in marked contrast to the willingness of the city fathers to give. The books

of the school show that in the primary department out of 29 classes there were 13 which had an average attendance of 100 per cent. for the month of November, 1893. A recent visit to the classes showed in many cases 100 per cent. in attendance.

The trains of the Second Avenue Elevated Railroad pass the front of the building, interrupting instruction and darkening the windows with steam and smoke. Yet on account of the close proximity of other buildings at the sides and rear of the school-house, the front rooms are by no means the poorest. It is found necessary to change class-rooms in one instance in order to do "slate work." Artificial light is required in many of the rooms on cloudy days. Where gas is not furnished, oral teaching is the only method which can be employed on such days. In one of the halls hangs a large clock; on stormy days the time can not be read 20 feet away.

Ventilation is directly from open windows or through adjoining class-rooms. The window space is entirely inadequate for air as well as light. One teacher, who was speaking with difficulty, was asked if the poor ventilation did not affect her voice? "Yes, indeed," she said, "I have been troubled ever since I came into this room; I was always well before that." Whenever gas is used the air is, of course, more quickly vitiated.

The playground in the basement is small and dingy. On the boys' side, the closet accommodations were anything but wholesome; the odors were bad and some of the bowls were poorly flushed.

Number 75. Number 75 is situated on Norfolk street, near Hester.

The school building is of recent date. In the primary department there are 1,100 children enrolled. There are at least 100 children on the waiting list. The pressure is so great that scholars who are absent a week are liable to lose their places in the school.

On cloudy and stormy days, it is found necessary to use gas. But in the primary department, at least, no gas is allowed before 11 o'clock in the morning, because it has been found that if used earlier, the air of the room becomes intolerable before the hour of dismissal.

The playground is in the basement. So dark is it that, except on the brightest days, children can not be seen across it by the teacher in charge.

W. S. UFFORD,

26 Delancy Street.

SCHOOL ACCOMMODATIONS IN GENERAL.

When the foregoing investigations were completed, no time remained for a special examination of the general conduct of public education in this city. At my request, however, the following report is submitted by Mr. James A. Scrymæer, who has obtained from official sources the data for his judgment that the present provision for the children of school age is even less adequate than the public, already aware of the overcrowding in many school buildings, has supposed.

37 WALL ST., NEW YORK, Dec. 18, 1894.

Professor GIDDINGS, *Columbia College*:

Dear Sir.—I inclose for your consideration a comparative statement, based on the total population of the cities of Chicago and New York. I select years when the official census shows the population of the two cities to be very nearly the same.

	Population.	5 to 16 inclusive.	Per cent.
New York (1888).....	1,588,472	357,565	22.51
Chicago (1894).....	1,567,727	357,102	22.77
<hr/>			
Total under 21 years.....			658,646
Less ages 17, 18, 19 and 20			93,036
Leaving 16 years and under.....			565,610
Less 3 years and under	161,437		
Less 4 years old	47,071		
			208,508
Five to 16 inclusive			357,102
New York's total population, 1888.....			1,588,472
<hr/>			
Chicago's school census, April, 1894, gives:			
Total population.....			1,567,727
School age under 14			458,834
Under 4 years.....			161,457
<hr/>			
To ascertain Chicago's school population between 6 and 16 years inclusive (which is now the basis of the State of New York) estimate, by taking the total number under 21 years, viz.....			658,646
Deducting from this those of the ages of 17, 18, 19, 20			93,036
Leaves 16 years and under			565,610
From this should be taken those:			
Three years and under.....	161,487		
Four years old (estimated).....	47,071		
			208,558
Leaving 5 to 16 years, inclusive.....			357,052
<hr/>			

Therefore, if Chicago's school population on the New York basis, 5 to 16, inclusive, is 357,052 on a total population of 1,567,727, New York's school population must be 455,000, if New York's total population in 1894 was 2,000,000.

I also inclose for your information the printed letter of the president of the board of education to his honor, the mayor of the city of New York, dated September 30, 1890, and direct your attention to pages 6 and 7. My letter marked 2, points out what I believe to be errors, of which you can easily trace particulars on pages 6 and 7.

"Referring to the printed letter of the President of the Board of Education, dated September 30, 1890, addressed to his honor, Mayor Grant,* relative to public school accommodations, I find on inquiry of Colonel Balch, auditor of the board of education, that the estimated school population given on page six, for the year 1890, at 271,000 is incorrect. He estimates the school population between the ages of 5 and 14, 352,574.

"On page 7 it is stated that the 'apparent deficiency in school accommodation' is 102,000 sittings; but it will be noted that this is based on the reported school population of 271,000. If the school population be 352,574, the deficiency would be 165,830 instead of 102,000.

"Paragraph 4, page 7, reads as follows: 'Taking into consideration the estimated attendance in the corporate, parochial and private schools, the children under 8 years, whose parents do not wish them to attend school and the children legally at work, the deficiency in school accommodations is believed to be about 10,000 sittings.'

"I do not believe that any one who has examined the figures can honestly come to the conclusion that the deficiency of sittings is but 10,000. The school age being from 5 to 14, I question the propriety of deducting the children under 8 years of age, whose parents do not wish them to attend school and the children legally at work; were there school accommodations for them many of these would no doubt be at school. If all the children of school age (5 to 15, inclusive) demanded their rights the above figures show the real deficiency in school accommodations would be 105,830 instead of 10,000 sittings, as stated, after deducting the 60,000 estimated in other schools.

"In further evidence of the above estimate I beg to state that the statistics examined show that in 11 years (1880-1891) the population of the city of New York has increased 46 per cent., whilst the school enrollment has only increased 7.83, and school expenditures have increased 23 per cent.

"It is stated by those in the present school management that many of the children are recounted at several schools. It must also be true that owing to the large shifting population of New York city the enrollment is likewise increased. A special committee of seven was appointed by the board of education to recommend changes in the school system of New York city. This committee visited other cities and made their report last November; it contains many valuable recommendations, but it is noticeable that the report does not contain a single word relative to increased school accommodations, ventilation or sanitary conditions, notwithstanding the frauds discovered in the construction of the new school buildings during the year 1891. Apparently there is some influence at work which prevents these notorious facts being made public as they should be. I learn that the president of the board of education has recently called for a report asking for information on these matters, consequently, I advise that no action be taken by our committee until it is seen whether or no the president of the board of education will make known the facts when obtained by him.

"The estimated growth of the school population (5 to 15, inclusive) for the year 1891 is 13,406. It will be noted only about 7,000 sittings were added during the year."

I also give you the following statement respecting the number of sittings in the public schools, September, 1890, and the annual additions thereto, including 1894. I also give you the

* The letter above referred to is a public document published by the board of education.

estimated school population five and 15 years, inclusive, January 1, 1890, and the annual increase, including 1894. I believe these figures to be substantially correct. They were prepared by the late Colonel Balch, auditor of the board of education. Respecting the number of sittings, I can state that I have a letter from him saying that these were supplied by the superintendent of buildings, and he believed them to be absolutely correct.

SITTINGS IN ALL SCHOOLS.

September, 1890	186,744
Added, 1891	6,804
Added, 1892	6,822
Added, 1893	7,224
Added, 1894	12,240

Total sittings	219,834
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Total School population, 5 and 15, inclusive.....	383,032
Increase from previous years	12,952
Increase, 1891	13,406
Increase, 1892	13,986
Increase, 1893	14,310
Increase, 1894	14,887

452,573

You will observe on page 6, of the printed letter of the president of the board of education, dated September 30, 1890, it is estimated that there are 60,000 in all, in the colleges, parish and other schools than public schools, say 22 per cent. of the total estimated population of 5 and 14 years, 271,000. From the estimated population of 1894, 452,573, I shall, therefore, deduct 22 per cent., say 99,566, to ascertain the number in colleges and schools other than public schools. These deducted leave 353,007 to be accommodated in the public schools, with but 219,834 sittings, thus showing a deficiency of 133,173 sittings. Of course, there are very many children of school age engaged in various occupations, which, in the nature of things, prevent their attending school. No doubt many would be at school if they could be properly provided for.

You will observe these calculations are based on the school age of 5 and 15 years, inclusive. The Compulsory School Law,

which goes into effect January 1st next, compels all children of 8 and 16, inclusive, to attend school. These figures prove that it will be impossible for them to do so for want of accommodation.

Yours very truly,

(Signed.) JAMES A. SCRYSER.

GENERAL CONCLUSIONS.

Having studied carefully the foregoing reports and communications and in many important particulars personally verified them, I am prepared to submit the following general conclusions and recommendations:

The foreign-born population of this city is not, to any great extent, forcing children of legal school age into money-earning occupations. On the contrary, this population shows a strong desire to have its children acquire the common rudiments of education. If the city does not provide liberally and wisely for the satisfaction of this desire, the blame for the civic and moral dangers that will threaten our community because of ignorance, vice and poverty, must rest on the whole public, not on our foreign-born residents.

The provision of school accommodations has been made with a stupid disregard of plan, of the distribution of population, of the public welfare, and of enlightened opinion, that stamps the educational administration of this city as ignorant and incompetent. When an educator of the experience and sobriety of mind of President Crowell is obliged to write, "While the general fidelity of the teaching force is to be commended, the whole order of things strikes one as being in the control of a grossly incompetent set of outside officials, at whose mercy the system is cramped and tortured into a low degree of educational efficiency," the condemnation is severe. I am satisfied that it is just.

The very large number of children under the legal school age of 8 years in proportion to the number 8 to 14, shows the imperative need of kindergarten accommodations. In this matter New York is behind nearly every enlightened community in the United States.

The statutes of this commonwealth should provide for a school census in every town and city, and for a complete, accurate, scientific registration of births, according to the methods most approved by statistical experts. Without these, compulsory education laws are a ridiculous farce. Without these, there is absolutely no means of knowing what the exact educational

needs of the population are; there is no way of enforcing penalties against truancy. Moreover, to require parents who may desire to put their children at work to make oath that the children are of a certain age, is not a means of ascertaining ages; it is only a means of cultivating the habit of perjury. Parents should be required to produce the attested birth certificates of all children not in school. The foreign-born have such certificates, and we should require them, after a determined future date, of the native-born also. It would be a simple matter, and no hardship to parents.

Respectfully,

FRANKLIN H. GIDDINGS.

SUPPLEMENT No. 4.

Report on Public Parks.

NEW YORK, *December 1, 1894.*

R. W. GILDER, Esq., *Chairman of the Tenement-House Committee:*

Dear Sir.—I herewith submit to the committee a statement showing:

1. What parks exist in this city, and what are in process of construction.
2. The methods whereby parks came into existence, and the delays under the present system.
3. A statement as to the Small Parks Act, with suggestions as to possible legislation.

I. WHAT PARKS EXIST AND WHAT ARE IN PROCESS OF CONSTRUCTION.

I subjoin, obtained from official sources, what I believe to be a very exhaustive list of park spaces owned or about to be owned by the city of New York, both within and without the city limits, with their acreage and location. As the interest of the committee is particularly fixed upon these small park spaces which are peculiarly serviceable in the alleviation of life in the tenement districts of the city, I have placed in a separate list, as fairly coming within the definition of small parks, those of less than 100 acres in extent:

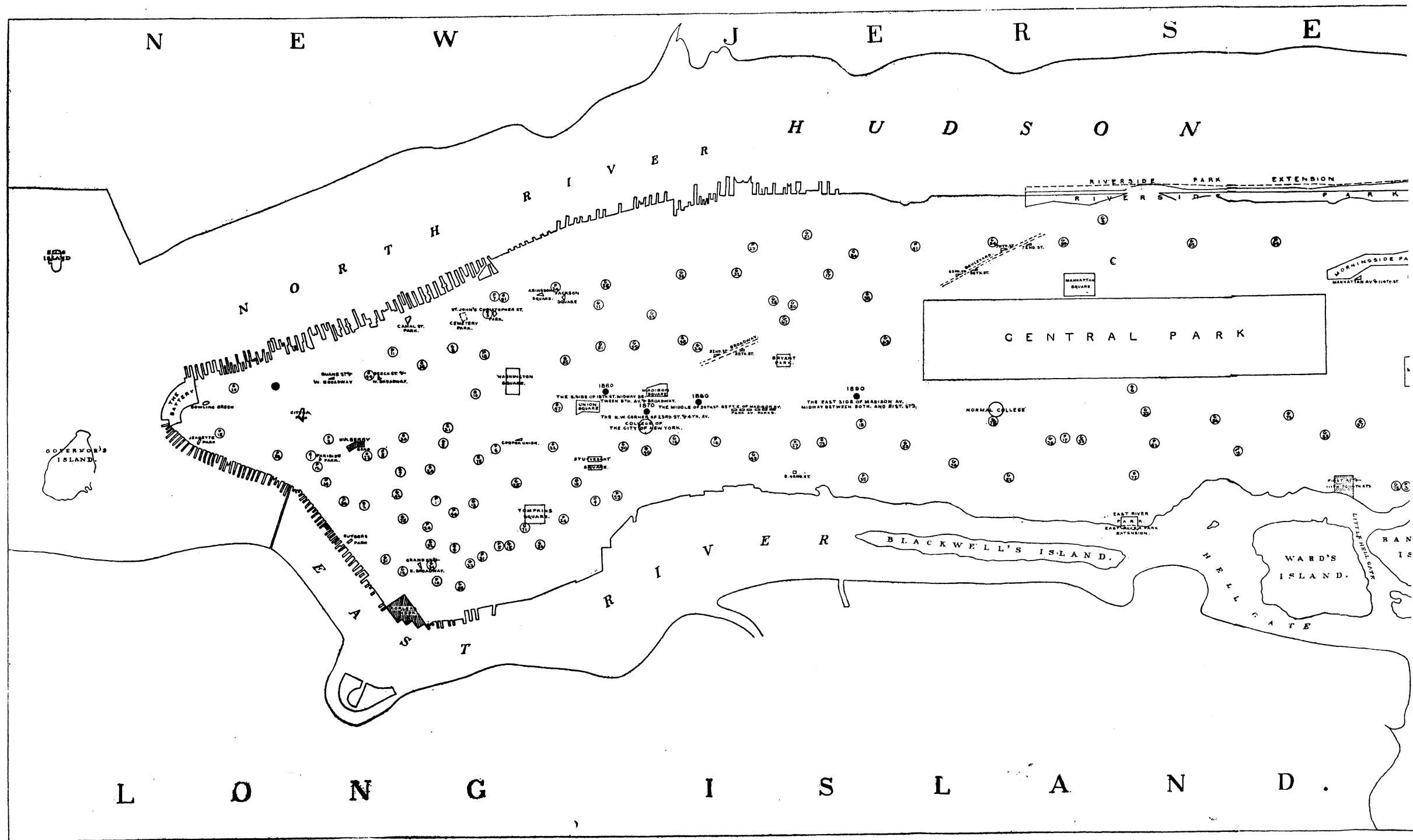
PARK SPACES OF 100 ACRES AND OVER OWNED BY THE CITY.

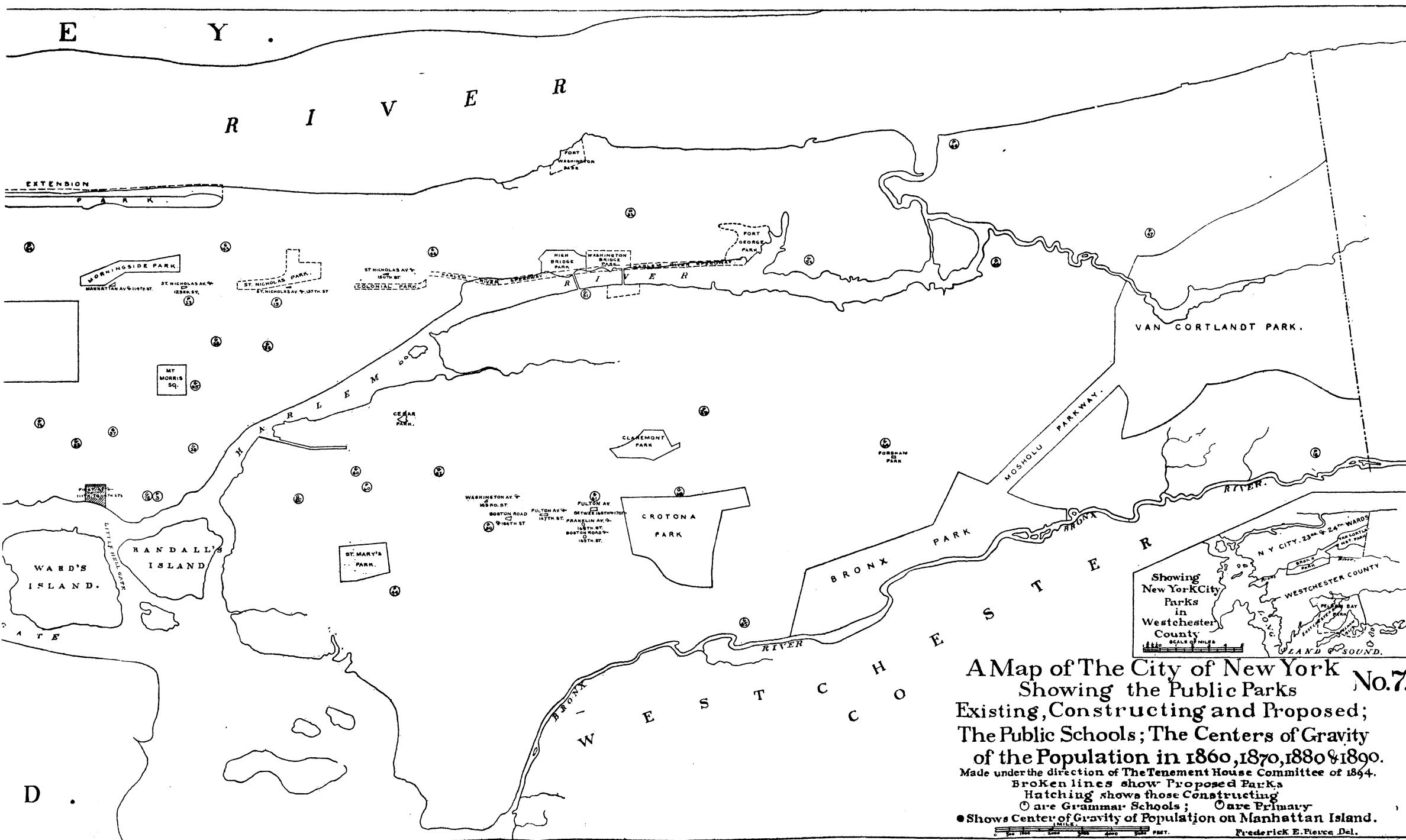
Name.	Location.	Acres.
Bronx	661.60
Central, Fifty-ninth to One Hundred and Tenth street, Fifth to Eighth avenue.....		839.92
Crotona	141.65
Pelham Bay, in Westchester county on southwesterly shore of Pelham creek.....		1,756

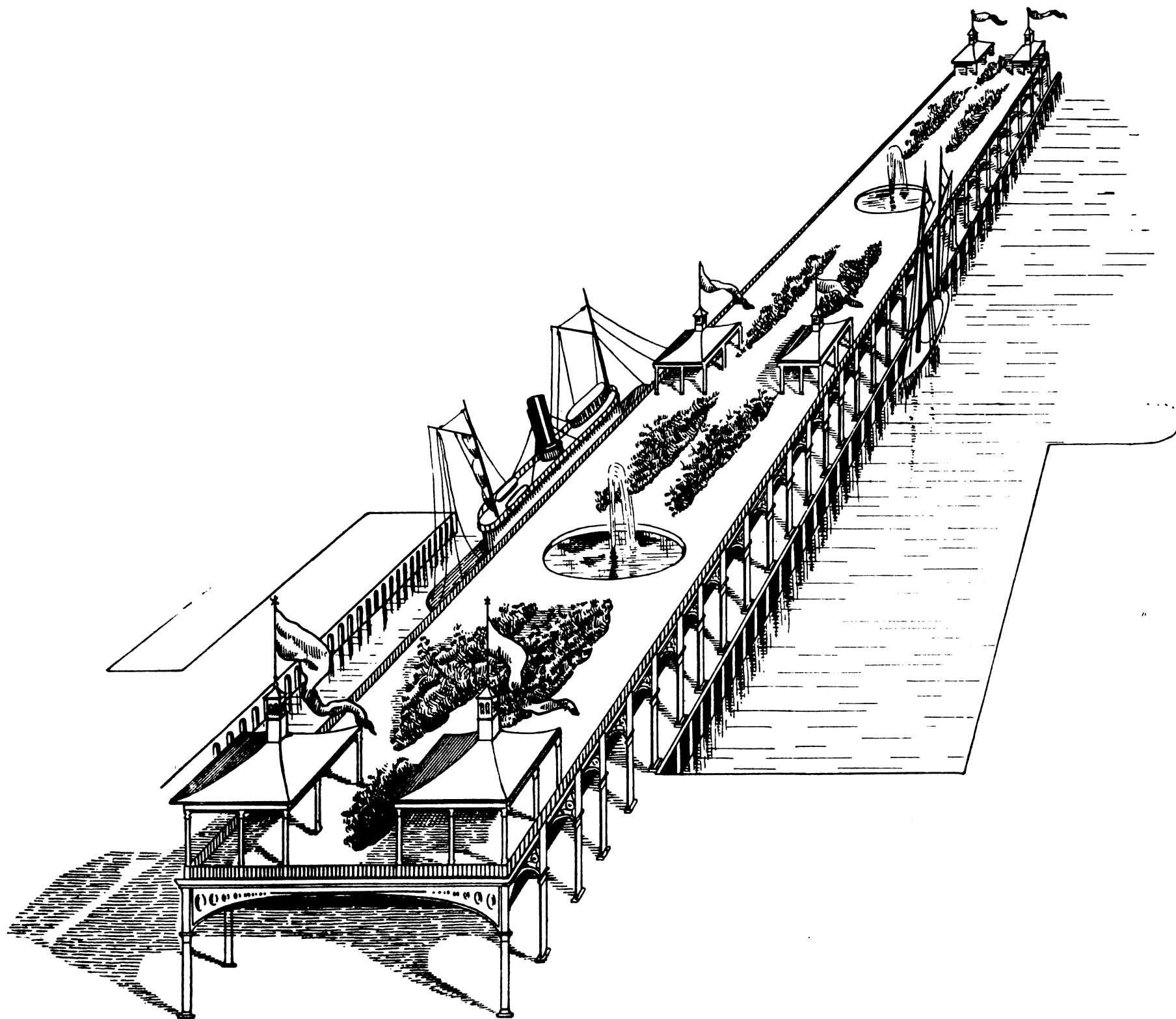
Name.	Location.	Acres.
Riverside, Seventy-second to One Hundred and Twenty-third street, Riverside drive to Hudson river		177.8
Van Cortlandt		1,132.35
Total		4,709.32

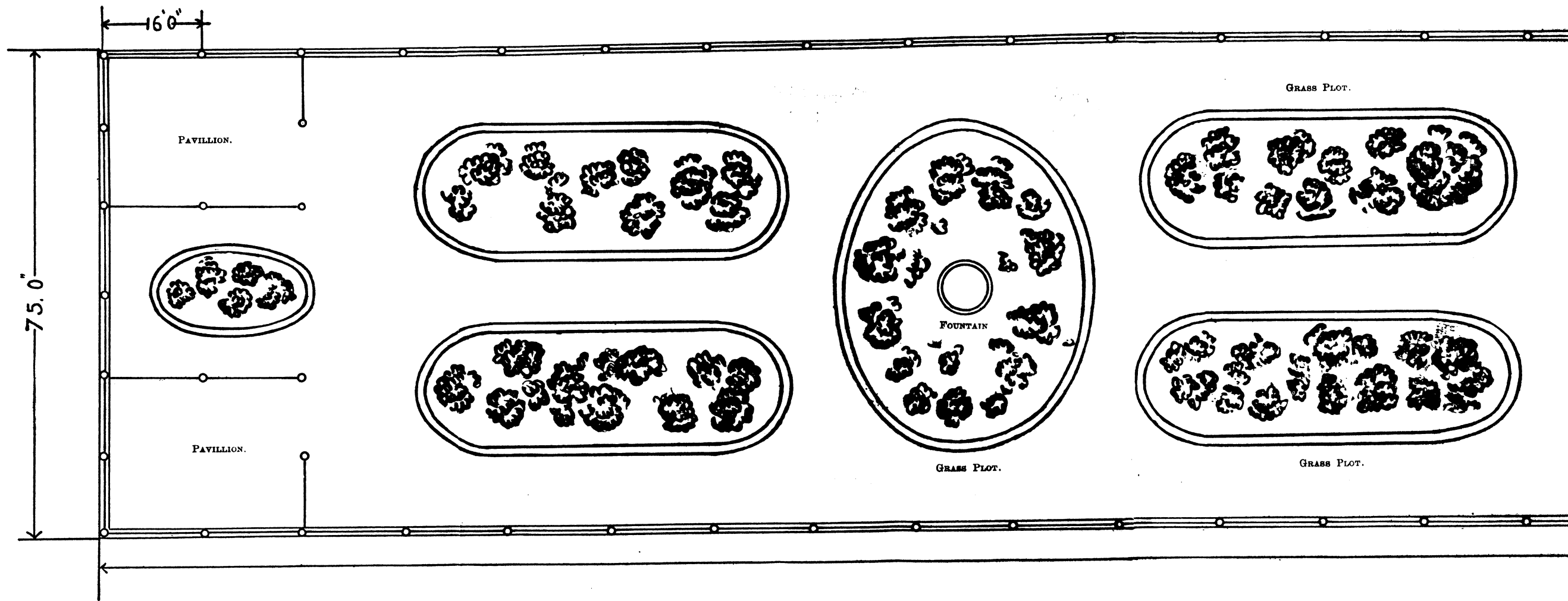
PARK SPACES OF LESS THAN 100 ACRES OWNED BY THE CITY.

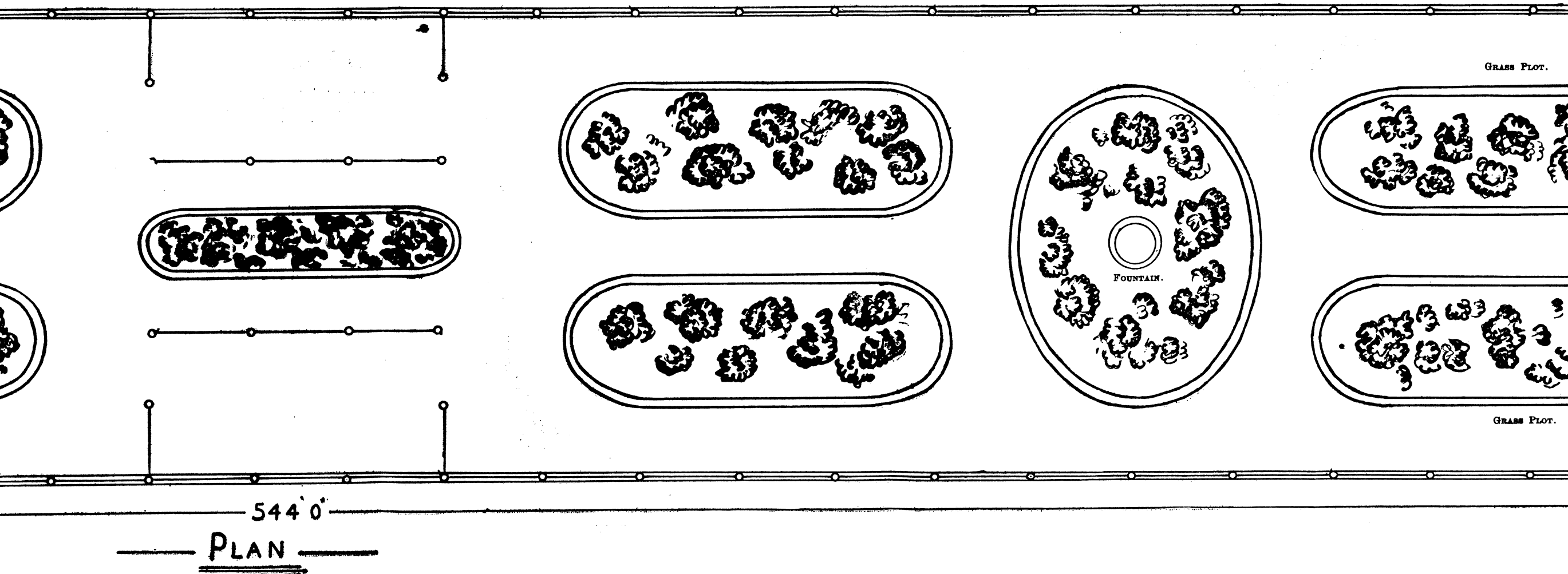
Name.	Location.	Acres.
Abingdon square, Greenwich avenue and Twelfth street . . . . .		.202
Bronx and Pelham parkway, joining Bronx and Pelham parks		95.
Battery, State street, Whitehall street, Battery place and New York harbor		21.190
Boston road and One Hundred and Sixty-seventh street . . . . .		.16
Beach street, Beach street and West Broadway . . . . .		.031
Boston Road and One Hundred and Sixty-fourth street . . . . .		.06
Bowling Green, Broadway and Whitehall street . . . . .		.517
Boulevard and Sixty-third street . . . . .		.344
Boulevard and Sixty-sixth street . . . . .		.069
Bryant, Fifth and Sixth avenues, Fortieth to Forty-second streets		4.775
Boulevard and Seventieth street . . . . .		.00238
Canal street, Canal and West streets . . . . .		.318
Corlears' Hook, Corlears, Jackson, Cherry streets and East river		8.3
Christopher, Grove and Christopher streets . . . . .		.139
Cedar park, Sedgwick avenue, Mott avenue, Juliet street and Gerard avenue		17.47
City Hall, Broadway, Chambers and Mail streets and Park row		8.239
Claremont, One Hundred and Seventy-second street and Third avenue		38.05
Cooper Union, Fourth and Third avenues, Sixth and Seventh streets . . . . .		.229
Crotona parkway, joining Crotona and Bronx parks		12.
Duane street and West Broadway . . . . .		.108
East river, Eighty-fourth to Eighty-ninth streets, Avenue B to East river		12.546



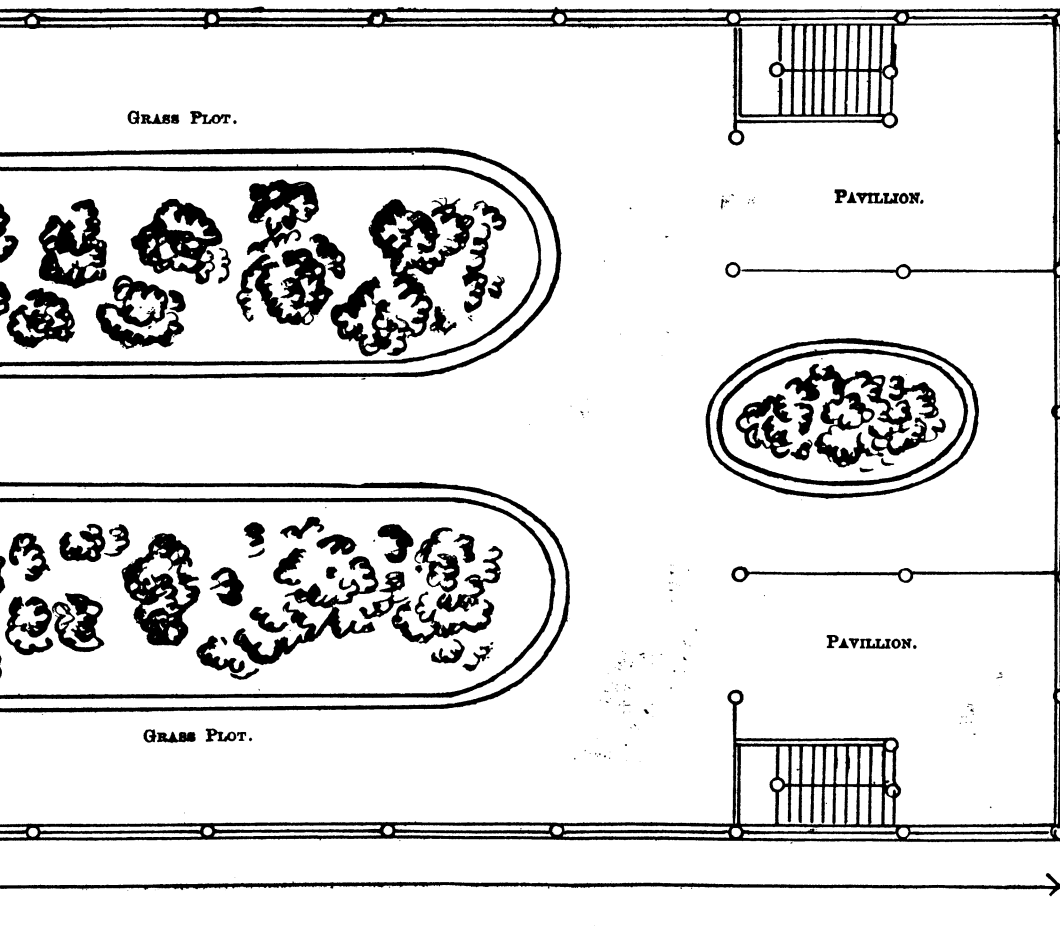




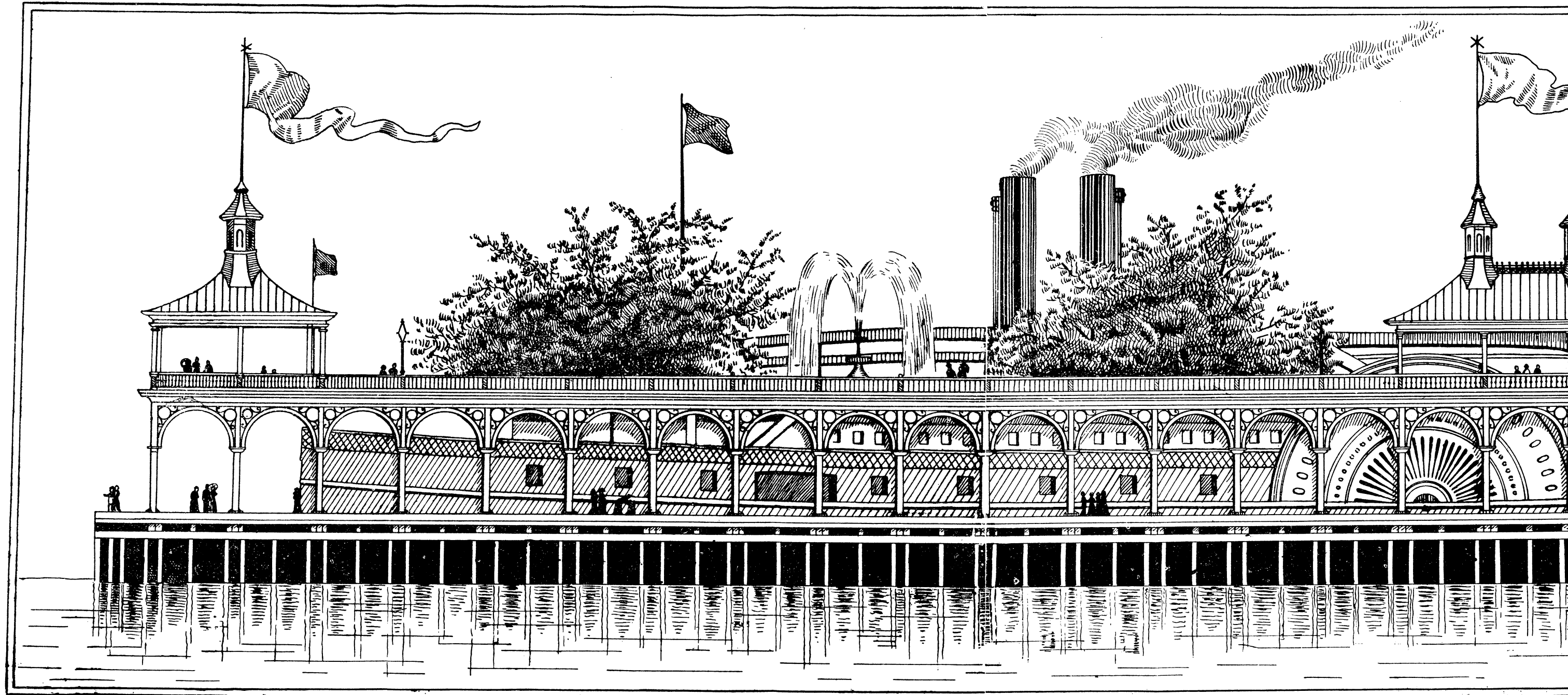


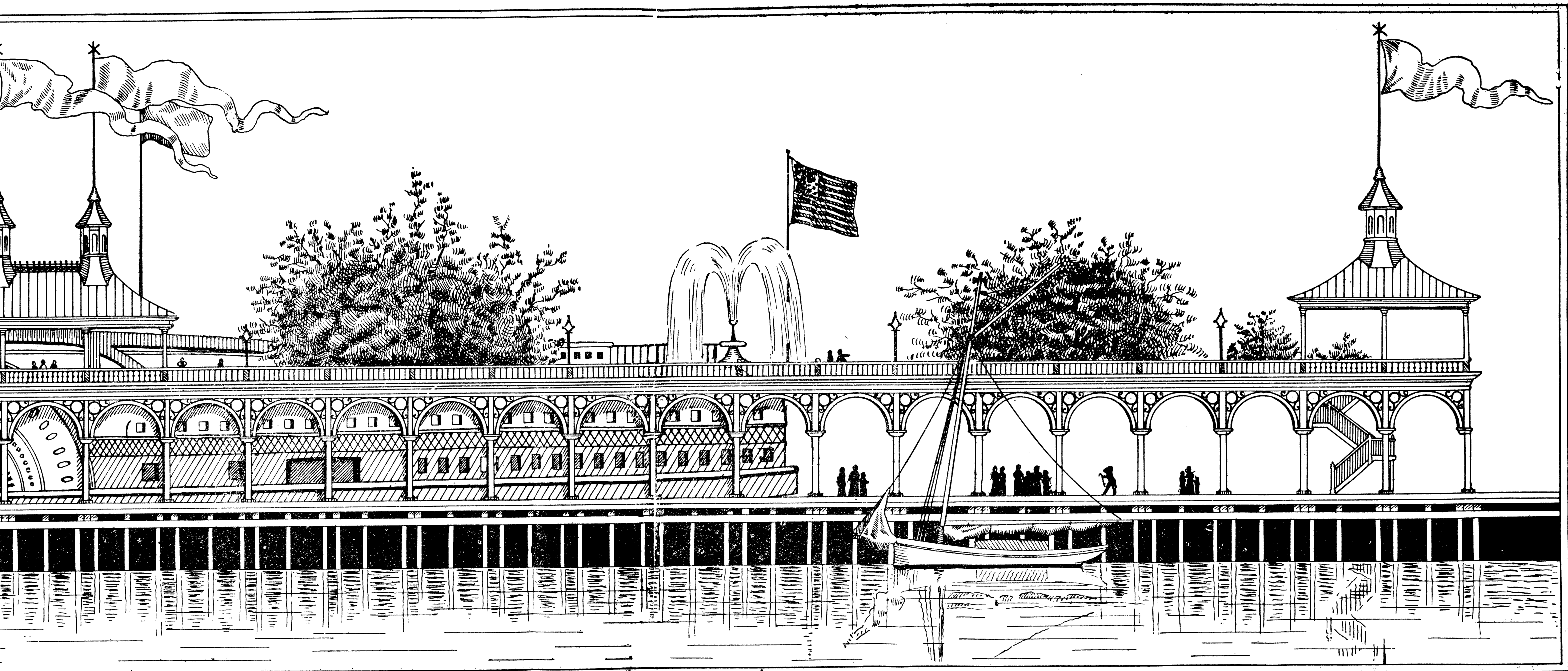


No. 2. Floor Plan of Pier Park.

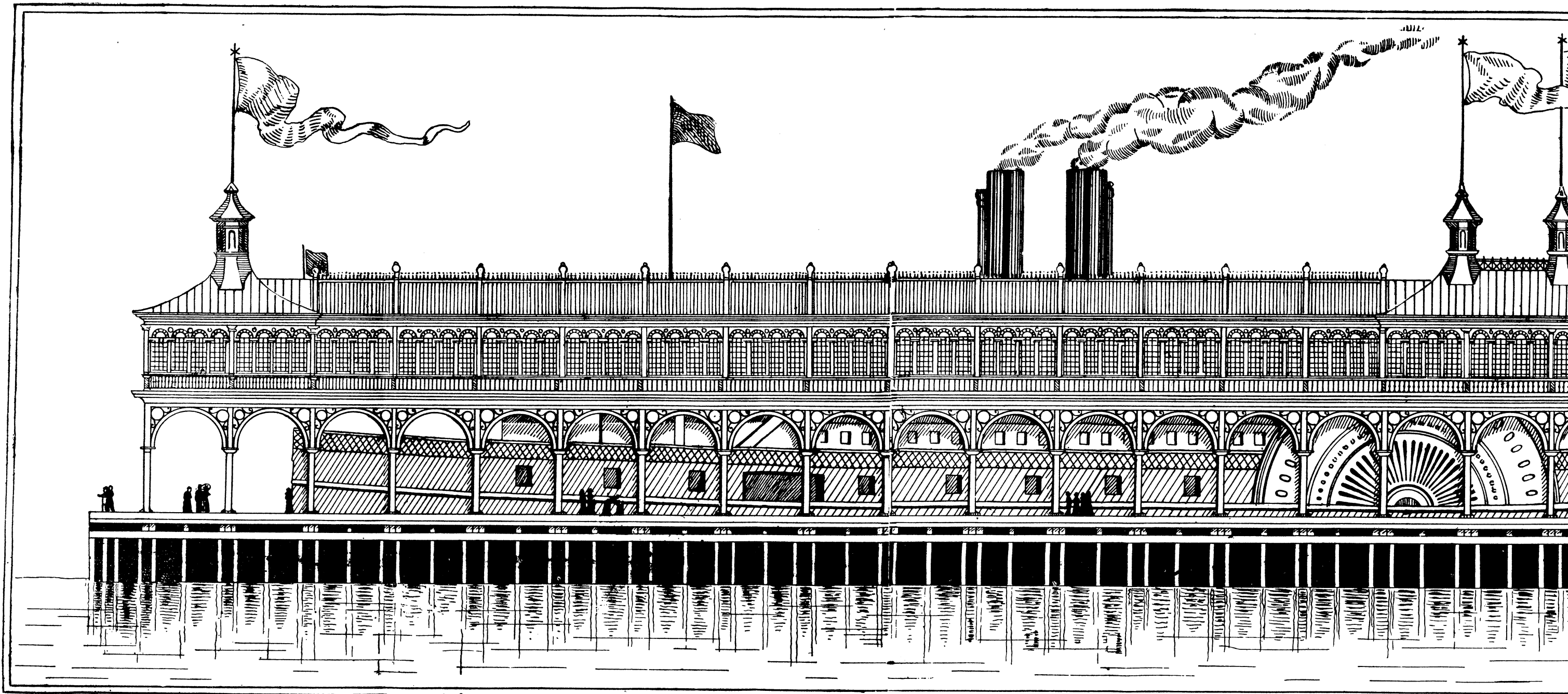


SCALE $\frac{1}{16}'' =$ A F.T.



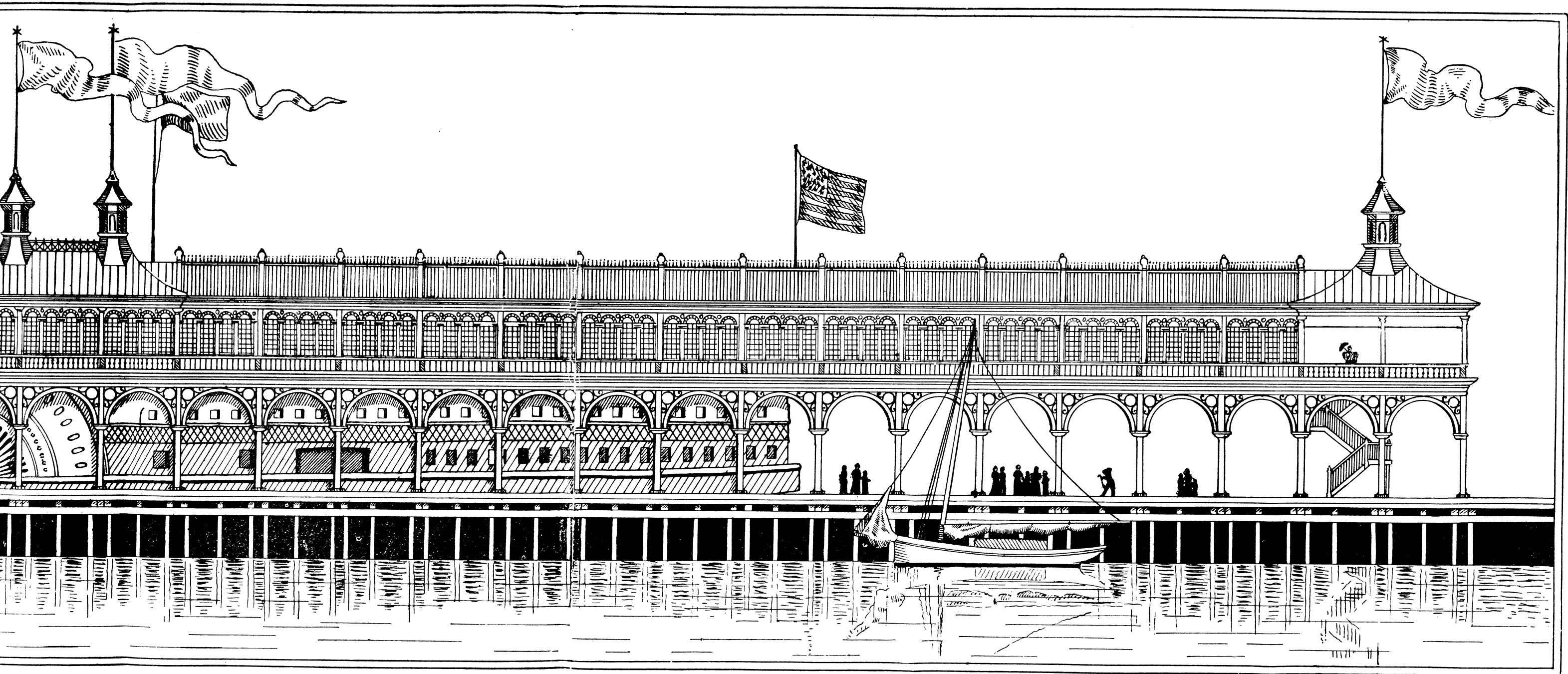


de Elevation of Pier Park (Summer).



Designed by W. d'H. Washington.

No. 4. Side Elevation of Pier Park in Winter, Enclosed in Removable S



in Removable Sectional Glass, Making a Sun-Bath, Conservatory and Winter Garden.

Name.	Location.	Acres.
Fulton avenue and One Hundred and Sixty-seventh street .....		.20
Fordham, intersection Third, Washington and One Hundred and Eighty-eighth street.....		.0416
Fourth avenue parks, Fourth avenue from Fifty-seventh to Ninety-second street.....		.563
Fulton avenue, between One Hundred and Sixty-ninth and One Hundred and Seventieth streets..		.90
Grand street, Grand street and East Broadway....		.63
High Bridge, west end of High Bridge.....		23.38
Jackson Square, Thirteenth street and Eighth avenue .....		.227
Jeanette, Coenties slip.....		.87
Mulberry Bend park, Bayard, Baxter and Mulberry streets		2.74
Manhattan square, Central park and Columbus avenue		19.051
Moshulu parkway, joining Van Cortland and Bronx parks		80.
Madison square, Twenty-third, Twenty-sixth, Madison and Fifth avenues.....		6.84
Manhattan and One Hundred and Fourteenth street .....		.018
Morningside, Columbus and Morningside avenues, One Hundred and Tenth and One Hundred and Twenty-third streets		31.238
Mount Morris, One Hundred and Twentieth, One Hundred and Twenty-fourth streets, Madison and Mount Morris avenues.....		20.174
Public square, intersection Fulton, Franklin avenues and One Hundred and Sixty-seventh street.		.2
Public square, intersection Washington and Brook avenues and one Hundred and Sixty-third street.		.05 1-2
Paradise, Five Points.....		.114
Park avenue, Thirty-fourth to Fortieth streets.....		1.168
St. Mary's, One Hundred and Forty-third and One Hundred and Forty-ninth streets and St. Ann's and Robbins avenues		28.70 1-2
St. Nicholas avenue and One Hundred and Fiftieth street .....		.240
St. Nicholas avenue and One Hundred and Twenty-third street .....		.072
St. Nicholas avenue and One Hundred and Thirty-seventh street .....		.038

Name.	Location.	Acres.
Stuyvesant,	Second avenue, Fifteenth to Seventeenth street	4.229
Tompkins,	Avenues A and B, Seventh to Tenth streets	10.508
Union square,	Fourteenth to Seventeenth streets, Broadway to Fourth avenue.....	3.483
Triangle,	Sixty-ninth street and Tenth avenue.....	.004
Triangle,	One Hundred and Fourteenth street, between Eighth and Ninth avenues.....	.0416 1-2
Triangle,	One Hundred and Thirty-seventh street, between Eighth and Ninth avenues.....	.033
Rutgers,	Rutgers slip.....	.45 1-2
Washington square,	Washington place, University place, Fourth street, Macdougall street.....	8.115
Sixth avenue,	Thirty-second to Thirty-fifth streets..	.186
Two small parks in East	Forty-second street.....	.25 1-2
Total acreage of park spaces of less than 100 acres		464.50358
Total acreage of park spaces of 100 acres and over		4,709.32
		<hr/> 5,173.82358 <hr/>

The park spaces not yet the full property of the city, but authorized either by the Legislature or by the board of street opening and improvement hereinafter mentioned, are as follows:

ADDITIONAL PARK SPACES AUTHORIZED.

Name.	Location.	Acres.
St. John's Cemetery Park,	Hudson, Clarkson and Leroy streets	1.72
Colonial Park,	One Hundred and Forty-fifth to One Hundred and Fifty-fifth streets, between Bradhurst and Edgecomb avenues	11.75
St. Nicholas Park,	St. Nicholas avenue, One Hundred and Thirtieth, One Hundred and Thirty-sixth, One Hundred and Thirty-eighth and One Hundred and Forty-first, Tenth and Convent avenues	31.75
Fort Washington Park,	Boulevard and Hudson river, from 1,200 feet south of Fort Washington Depot road, to 2,000 feet south thereof	12.

Name.	Location.	Acres.
Riverside Park extension		46.5
East River Park, One Hundred and Eleventh to One Hundred and Fourteenth streets, from First avenue to the bulkhead line, East river (i. e., dis- cretionary within said limits).		8.5
Washington Bridge Park, at west or Manhattan island end of bridge, between Tenth avenue and the Harlem river, speedway, public grounds and Bogardus property, north of Washington bridge at One Hundred and Eighty-first street		17.
Washington Bridge Park, at east or Twenty- fourth ward end of bridge, between Sedgwick and Undercliff avenues, Harlem river and prop- erty of A. H. Green		8.
Total		137.22

II. THE METHODS WHEREBY PARKS COME INTO EXISTENCE, AND THE DELAYS UNDER THE PRESENT SYSTEM.

It is only through the Legislature, acting within constitutional restrictions, that private property is converted into public park spaces. There are two ways in which that legislative power is exercised in this city at present:

1. By the direct action of the Legislature, by special statute, designating the land that shall be taken.

2. By similar action on the part of a board to which the Legislature has delegated for this purpose its powers of eminent domain. This board is known as the "Board of Street Opening and Improvement." It was authorized by the charter of 1873 (chapter 335), and consists of the mayor, comptroller, commissioner of public works, president of the department of public parks, and the president of the board of aldermen.

During the last 20 years this right of eminent domain has been from time to time curtailed, extended, shifted and partitioned among various city boards and departments, with the result that much confusion, and not infrequently an almost irreconcilable conflict of authority has been caused. The present situation, however, is as stated.

When, through either of the agencies mentioned, the land to be taken for a park space has been determined, the title thereto must still be vested in the city. In the special statutes alluded to, it is usually provided that this shall take place upon the

confirmation by the court of the report of the commissioners hereinafter referred to; but the board of street opening may, by a formal declaration, vest such title, where there are no buildings upon the land, upon the date of filing of oath by said commissioners, and, where there are buildings thereon, upon a date not less than six months from the date of such filing. In either case the business is completed by a board of commissioners (who by the State Constitution must be not less than three in number, and appointed by a court of record, and are by statute three in number, and appointed by the Supreme Court), who proceed to ascertain in whom the title to the various parcels of land involved lies, and to determine what awards shall be paid the private owner for the property taken, or what assessment he shall pay for the benefits accruing to such property of his as remains untaken adjoining or in the neighborhood of the proposed improvement. The owner is heard by the board through attorney, and presents testimony upon these points; and he may object to the commissioner's decision upon any one of them. Upon his objection, if unheeded by the commissioners, the court may direct a re-examination of the subject-matter, by either the same or a new commission, which it appoints. Objections may be raised in like manner to this, with a possible new resubmission by the court, as before, and so on from time to time until a report is at last submitted, which the court will confirm. Then, in any event, the city owns the land against all persons.

Often in the course of the proceedings questions arise which are carried to the appellate courts, and the vesting of title waits upon their decision. Such a question for instance, arose in the case of the St. John's Cemetery park, the Trinity corporation, owner of the land, contending that the board of street opening had no power to take a burying ground for park purposes — a question finally decided adversely to the corporation.

The procedure of these commissions has been in some instances characterized as very slow — even culpably so — and while some part of that criticism has been, perhaps, unjustly extended from particularly commissions which have deserved it, to the whole system, it is undoubtedly true that there have been, particularly in the past, and still are, to some extent, features productive of delay.

Thus more or less of delay is inseparable from the character and composition of the commission, which is made up in each case for the particular proceeding of men engaged in mercantile or professional occupations, to the requirements of which the commission's work is often forced to take a secondary place, so that the commission's meetings proceed seldom continuously, but

as a rule, very much after the manner of a reference in an action or special proceeding, whose progress is, in the legal profession, proverbially slow.

Again, a fruitful source of delay was, until the passage of a late statute, to be found in the fact that the compensation of the commissioners was computed upon a system which made it in many cases ridiculously inadequate, and led them to postpone the performance of their duties in that respect, to other more lucrative engagements. This has been very properly changed by the statute alluded to, which give the commissioners a compensation which, though small, is certain, and has to a great extent done away with this cause of delay.

Perhaps, chief among the constant elements of delay is the fact that the commission is obliged, in order to commence its work at all, to wait upon the officials of another department to provide it with completed maps, which are indispensable for the performance of its duties. Thus, these commissions have to wait in the case of park spaces upon the department of public parks, in some other cases upon the department of public works, and in still others upon the commissioner of street improvements of the twenty-third and twenty-fourth wards; but always upon some outside power, already charged with the duties of construction and maintenance over a considerable area.

But it will, I think, be impossible to give to the work of these commissions the full measure of expedition which is attainable in many less delicate governmental operations. If it were practicable to make their inquiries continuous and not intermittent, a great deal of time might be saved, but the ascertainment and adjustment of land titles and values must always be a deliberate and cautious process, for, apart from its evident importance in a pecuniary sense, it is hedged and straitened by constitutional restrictions, which can not be overstepped.

III. THE SMALL PARKS ACT, ETC.

It appears to me, however, that the principal desire of the committee is to correct, not so much the delays in proceedings once begun, as the practical failure of existing authorities to exercise their powers at all for the creation of the necessary park spaces in the crowded tenement quarters of the city.

All the power necessary for that end is, as you are aware, conferred upon the board of street opening, by chapter 320 of the Laws of 1887 (commonly known as the Small Parks Act, passed May 13, 1887), which empowers that board to select, locate, and lay out such public parks as it may from time to time determine, in the city of New York, south of One Hundred and Fifty-fifth

street; and which authorizes the expenditure of \$1,000,000 a year to carry out its purposes. In the seven years which have elapsed title has been acquired under the provisions of this act to only three pieces of park property, to wit: The St. John's Cemetery park, 1.72 acres; the Mulberry Bend park, 2.74 acres; and the East River Extension park, 8.6 acres; a total of 13.06 acres; and on none of these has the work of construction even begun, except to some extent upon the East River Extension.

It will be observed that the board above mentioned, vested with the sole authority to acquire title to park spaces in this city, is composed of five ex-officio members, the heads of probably the most important departments of the city government, and as such charged with duties which fully engross their time. It is, in my opinion, useless, and perhaps unreasonable, to expect from a board thus constituted, the time and attention necessary for the devising and initiation of a scheme for the betterment of the tenement districts by the creation of park spaces, and the taking of land for public baths, lavatories, urinals, playgrounds about schoolhouses, etc. As matter of fact, the work of the board is (perhaps justly) considered by its members as a thing to be postponed or hurried through in the intervals of their main official business; and practically from start to finish, it devolves, alike in suggestion and performance, upon a bureau newly created in the office of the counsel to the corporation by chapter 158 of the Laws of 1893, and known as the bureau of street opening.

I think that the construction and maintenance of parks is best left where it now resides, in the department of public parks. I do, however, think that the present need of the city for some park spaces in the tenement districts, and for the establishment of the public conveniences above indicated, as will improve the condition of the population at large, can be best, and perhaps only, effected by the establishment of a special temporary commission, given all the power with regard to the selecting, locating and acquisition of land for these purposes, possessed by the present board.

I believe that an independent commission, which can concentrate its attention upon the task proposed, unhampered by other official work, is indispensable to prompt, thorough and intelligent performance of the necessary labor. Part of the commission might, as officers of the city government, be members ex-officio. As an alternative the mayor might be empowered by act to appoint a commission to locate the park spaces and other improvements contemplated. Their decision might either be final as to locality and nature of improvements, or be subject to the ratification of the Legislature, by act based

upon their recommendations to be reported to the Legislature. This suggestion is in the line of the act appointing the commissioners to locate the parks in the annexed district.

I have been asked whether, as another alternative, the work of location might be done in the first instance by an unofficial advisory committee or board of private citizens to be designated by the mayor—its conclusions and recommendations to be laid before the existing official agencies for action. I have no doubt of the mayor's power to designate such a committee; and as I have heretofore said to you, can readily conceive of its performing the highest class of work in the direction indicated. Of course, its function would be simply that of advisement to the officials at present charged with such duty.

Yours very truly,

A. D. PARKER.

SUPPLEMENT NO. 5.

Pier Parks or Promenades.

To the New York Tenement-House Commission, MR. R. W. GILDER, Chairman :

Gentlemen.—The entire report of the tenement-house committee and the conditions that have been found to exist as to overcrowding accentuate in the most forcible manner the necessity of more and larger breathing facilities for our geographically overcrowded population.

The feasibility of dock parks has long been discussed, but so far as the writer's knowledge goes no design has as yet been offered with detailed plans for an attractive structure for this purpose.

The city of New York on our water front owns 123 piers outright and 29 more in common with private individuals. Of these, 33 on the North river are shedded and 44 are unshedded, while on the East river 32 are unshedded and 8 are shedded. As the city is already short of dock facilities, it would probably be inexpedient to set aside to the exclusion of wharf purposes any of these piers, as these facilities are inadequate to the large and growing commerce of the city; while the loss of revenue to the city would be an item of considerable moment. The above plan is suggested as a combination for business purposes as well as public use.

The possibility of utilizing these spaces at a very small proportion of the cost of creating a park, where the realty would have to be acquired and damages for existing buildings and improvements satisfied, is worthy of consideration. The commercial value or revenue to the city would be slightly, if at all, affected by an elevated structure, as per plan submitted herewith. While the suggestion embodied herein will probably meet with opposition in some direction from the fact that it may be said that such a structure would endanger from fire the pier and its contents, as well as shipping lying alongside, yet it would appear that there would be little real objection, especially in the case of unshedded piers, to the erection of a structure such as is called for in the accompanying sketch. This

would not in any way interfere with the renting of the piers. Such a park or promenade would in all probability be in charge of a park policeman, and such regulations could easily be made as to guard against fire, either by prohibiting smoking or by reasonable regulations in regard thereto. The dock department has already taken a step in this direction by opening all its unleased piers to the public, and has put small sheds on the ends for the protection of the people from sun and weather. If the piers are not damaged or endangered by allowing the public on them in this manner, a structure elevated twenty or twenty-five feet would certainly be very much less dangerous and objectionable. These small sheds, however, fall far short of the requirements of the people, as there should be something attractive about a park or any public resort, and there is certainly little that is inviting about the end of a long dock, which is used for freight, teaming, etc. Where there is no separation between the commerce and pleasures of the people it is hardly to be expected that such resorts would be extensively patronized, although I am advised that these piers have proved a great boon in several sections of the city. The objection to the structures suggested on the ground of the danger from fire, etc., would seem to meet an excellent refutation in Pier 1, on the North river, where the iron steamboats make their landings, and from which thousands of people embark and debark annually. The top of this pier is used as a promenade, and a charge is made for the use of the same. This pier has been in use for this purpose for years, and the lower part is one of the busiest shipping piers in the city for valuable freight of all kinds.

As to the question of decreasing the revenue of the city or dock department by the creation of such structures in specified localities, it should be understood that it would be necessary to have them only at intervals, and the expense of construction would be very much less than would be entailed by the creation of a park in the city.

The accompanying sketch provides for iron columns, steel beams, terra-cotta flooring covered by concrete and asphalt, etc., which we show in detail in the specification, which would make it both water and fireproof. On such a foundation could be placed fountains, grass plots, flowers, plants, playgrounds for children, and, in fact, every attractive feature which would be possible in a small park on terra firma.

Apparently such parks would be peculiarly beneficial and attractive to our tenement-house population, especially on the very hot days of summer, and to those who are unable to take an outing on a steamer or otherwise in order to get a bit of fresh air.

They would be a boon to mothers and their babies and to children, and in the spring and fall, and, in fact, at all times when promenades or parks are used. That is to say, except for three or four months of the coldest weather, such breathing spaces would undoubtedly be largely availed of, and a dozen such structures could probably be created for little more than the cost of a park covering a single block in the city. It is not intended, however, to suggest these parks as a substitute for parks proper, but rather as a supplement thereto, as it would be almost impossible to provide too much room in our crowded sections for the expansion of the population.

Herewith will be found a view in perspective of the proposed pier park, the side elevation and the ground plan. These designs could, of course, be carried out either elaborately or plainly; and at much or little cost.

W. D'H. WASHINGTON.

DESCRIPTION OF PROPOSED PIER PARK.

The structure is to be built of steel and iron, one story in height, resting on the existing dock and foundation. The width of this building is 75 feet; the length, 544 feet; height, 25 feet in the clear. The roof, or deck, is flat, and is constructed with eight inch terra-cotta fireproof arches, fitted in between steel I beams, placed about six feet apart, and held together by wrought-iron ties, in the same manner as a fireproof floor. These beams are supported upon lattice steel trusses, which span the entire width of the building. The trusses are placed 16 feet apart and rest on hollow cast-iron or wrought-steel columns, the whole being tied together by I beams rivited to the tops of columns and girders, and securely braced by cast-iron arches, or steel angles, bent to the required shapes. The spandrels of the arches are filled in with ornamental cast or wrought-iron open work, as shown on the side elevation. Above the arches is a cast-iron cornice, which extends entirely around the building, with gutters, to carry off the surface water from the roof or deck.

Six pavilions, two at each end, and two in the middle, are constructed to afford protection to the women and children in case of storms, and from the rays of the sun. Within these pavilions are the stairways, which afford access from the street to the park. These stairs are supported upon steel strings, and have cast iron risers and newels, slate treads, wire netting for railings, with polished wood hand-rails.

The roofs of pavilions are of galvanized iron, corrugated, and the ornamental towers and turrets and cornices are also of galvanized iron. The roofs are supported on light steel trusses, which rest on hollow cast-iron columns, or steel posts, all firmly riveted and bolted together. The entire park is fenced in with iron wire netting, not less than three feet six inches in height, firmly secured to cast-iron newels and columns of the pavilions. The roof, or deck, is finished on top of the arches with a good layer of Portland cement concrete, over which is put down a finishing coat of asphaltum, to make water-tight, so graded that the surface water will run into the gutters; from which it is discharged through galvanized iron leaders into the river. Suitable curbs are set where shown on the ground plan, of sufficient height to receive fertilized earth to grow plants and trees, as may be directed. Two fountains are to be placed in the park as shown. The same to be of cast-iron.

These fountains to be supplied with the necessary water supply and waste-pipes, etc. One toilet-room to be constructed for ladies and one for men; approached from one of the upper landings of the stairs.

On the plan the portions colored green indicates where the ground is to be filled in, sodded and trees and plants grown. The portion colored light-yellow, shows the walks and playgrounds for the children. Suitable seats to be provided as the demand may require. All the iron-work is to have one coat of red lead paint and two coats white-lead and linseed oil. Roofs painted red; other iron-work light-yellow. If desired, the pavillions could be inclosed with glass, and heated and would serve as a winter garden or solarium.

The floor of the park is designed to support 150 pounds per square foot, in addition to the weight of the materials. Trusses which support fountains and garden spots proportioned to safely carry all loads.

SUPPLEMENT No. 6.

Report on Existing Baths in New York.

To the Chairman of the Tenement-House Committee:

The city of New York itself maintains floating baths, which are largely used in spite of their distance from the tenement districts. They are only open during four months of the year. In winter time, when bathing is even more necessary to the preservation of health than in summer, these baths can not be used at all. The following letter was written to the committee by Commissioner M. T. Daly, of the Department of Public Works:

"In answer to your inquiries regarding this city's floating baths, I present the following: The first two baths were built and opened in 1870, and the latter additions are: in 1876, four baths; 1879, two baths; 1882, one bath; 1883, four baths; 1888, two baths; total number in use since 1888, 15 baths. Average cost of each bath complete, \$9,500. Annual cost of maintenance, for repairs and supplies, storage, lighting, etc., \$18,000; for salaries of keepers, attendants and watchmen, \$30,000. Average bathing season, from June 10th to October 1st. Average number of bathers (number of baths taken or given) for each bathing season since 1888, males, 2,500,000; females, 1,500,000.

"To the above I add, by enclosure, a general description of the baths, which has been prepared as a reply to the hundreds of requests for information from all parts of the country."

"DESCRIPTION OF NEW YORK'S FREE FLOATING BATHS."

"There are 15 free floating baths, berthed at convenient locations from the Battery to One Hundred and Thirty-fourth street on the North river and from Market slip on the East river. The baths are usually open from the middle of June to October 1st. They are open daily from 5 a. m. to 9 p. m., except Sundays, when they are closed at noon. Mondays, Wednesdays and Fridays are set apart for women and children, the remainder of the week being for males. The average number of persons using the baths annually is over 3,750,000. There is absolutely no charge for admission to the baths. All bathers are required to furnish themselves with bathing dresses (excepting children), and to

avoid infection no towels or other toilet articles can be hired at the baths. Two male attendants are in charge of each bath on the days set apart for males, and two females attendants on the other days. There is also a male guard at each bath on women's day, a policeman to keep order, and a keeper on each bath at night. Each bath has an average of 63 dressing rooms, a reception and retiring room, and is lighted by gas. The baths have a supply of ice water, and are thoroughly swept, scoured and washed down nightly. At the end of each bathing season, the baths are thoroughly repaired and cleaned."

Through private philanthropy, two bath houses, of improved construction have, within the last few years, been provided for the working classes, and placed in the midst of populous tenement-house districts. Another bath similar in character has been located in the basement of the Demilt dispensary, and within a short time the Riverside association and the Cathedral mission have put rain baths in their basements for the use of the public. These baths all charge a small fee for admission, and are not, therefore, literally free, but the price is so low as not to be prohibitory to even the poorest class of people. They are the only public baths that can be utilized by the poor people of this city at a minimum fee, and, together with the 15 free floating baths used only in the summer, they constitute the available public washing places for the poor. Baths in the cheap barber shops are to be had from 15 to 25 cents each. The bath-rooms and the tubs are not, as a rule, clean, and some of them are filthy. They are only used by men, and the price is above the means of the poor man, even if they were clean. They are not extensively patronized for these reasons.

The rain baths, as the new baths are called, are constructed on a simple principle, which affords a proper cleaning of the body with warm water and soap, and also furnishes the best sanitary safeguards that have yet been devised in baths against disease. The first rain bath in this city was introduced in the New York Juvenile Asylum, by Dr. Simon Baruch, who had made a special study of the bathing system of Europe, and who, by his indefatigable energy, has brought a cheap, practical and efficient bathing system into use. The original tub in the asylum was a plunge bath. This was cut down to diminish its height and to save the expense of a new floor. Above it were placed 68 sprinklers, near the ceilings and 28 inches apart. The temperature of the water in the pipes leading to the sprinklers is regulated by the admixture of steam. The children enter the tub in groups, when the warm water is turned on. They apply the soap and scrub the cuticle well with their hands, while the warm

water falls on them, and washing them clean passes immediately out of the tub as fast as it reaches the bottom. Two hundred and eighty children are washed in this way every hour, while under the old system of the plunge bath, only 80 children could be bathed in the same space of time. Ten minutes are allotted to each group in the water. The quantity of water as measured, is, by this method, only one-eighth of that formerly used. The principle of the rain bath is that of the shower bath in private houses, but in the latter cold and hot water are mingled together, while in the former the cold water is heated by steam. The advantages of the system as stated by Mr. Carpenter, the superintendent of the asylum, are as follows: First. It requires but a minute or two to prepare for bathing. Second. The children bathe and rinse in clean water. Third. A larger number can bathe in successive companies. Fourth. It requires only one-fifth or one-tenth part as much water as the plunge bath.

Dr. Baruch sought to do away entirely with the old-fashioned tub, as he knew the difficulty of keeping one of them in proper sanitary condition, when large numbers were using it. The new method he describes in these words: "Being thoroughly soaped, the bather stands upon an inclined asphalt floor, under a large rose, from which a coarse spray is descending with some force. Both hands being free, as in the tub, he may rapidly rid himself of all accumulation of suds or dirt, which the descending stream will wash away, flowing from him to the inclined floor and thence into the gutter." Although modified in different ways, the essential principle is similar in the five new baths that have been recently built in this city for the poor.

The People's Baths at No. 9, Center Market place were opened to the public August 17, 1891. The building, which was erected under the auspices of the New York Association for Improving the Condition of the Poor, is a two-story structure of brick and iron, and is used exclusively for bathing purposes. It is located in the midst of a populous tenement-house district. There is one general entrance. On the first floor are the waiting-rooms, one of which is for men and the other for women, with the office between them. Here a cake of soap and a crash towel are handed to each bather. The bath-room is a high, spacious apartment, with a large skylight in the roof, which furnishes an abundance of light and air. A corridor on each side leads from the waiting-rooms to the bathing compartments, each of which is divided into a dressing-room and a bathroom proper. There are eight spray baths

for males, and seven spray baths for females on this floor, with three tub baths located in the rear. Two of the latter are used by mothers with young children, and the other is for males. The dressing-rooms are entered through screen doors having locks on them. Each is three feet six inches by four feet in size, and contains a seat and clothes hooks. A curtain, sliding on a bar, forms a movable partition between the apartments. The bath-room is three feet six inches in width, by four feet in length, made of sheet iron, covered with enamel paint. There is a seat on one side. A douche, circular in form, is placed above, out of the reach of the bather. The water from it falls at an angle so as not to wet the head, unless it is desired, and is under control of the bather. The floor is of cement and slopes down to the drain. The water is carried by its own momentum and the inclination of the floor into the waste-pipe. A wire screen covers the tops of all the baths, so as to secure perfect seclusion. There are two toilet-rooms for women, and in the corridor there is a large mirror and combs for their use. In the corridor on the men's side is likewise a mirror and combs, and they have one toilet-room.

The basement has in front the laundry, with all the modern appliances. In the center is the engine-room, with the engine, and a boiler of such capacity as to heat the whole building with surplus steam. Steam is employed to heat the water for the baths. The supply of water, which is abundant, is taken from an artesian well beneath the building and from the Croton pipes. Ventilating machinery of the most improved pattern is placed here. There are seven spray baths for males, which are exactly similar to those on the floor above. A mirror and combs can be found in the corridor. There are two toilets. All the rooms in the basement are well ventilated by fans and are lighted with gas. The best sanitary and engineering skill has been employed in the construction of the building and its machinery. The sexes are entirely separated from the time of entering until leaving the premises. The fee for a bath is five cents, a small child with its mother being admitted free. The time allowed such bathers is 20 minutes. The towels are washed in the laundry and are thoroughly disinfected by heat, which insures their sanitary condition and the protection of others from disease. The baths are open every day in the year. The hours of admission are from the 1st of April to October 1st, 6 a. m. to 9 p. m., and from October 1st to April 1st, 8 a. m. to 8 p. m. On Sundays, the hours are from 6:30 a. m. to 9 a. m. A competent matron has charge of the women, an experienced man of the men, and a policeman

has been detailed to be in attendance and to preserve order. Many who have inspected this model bathhouse have pronounced it matchless, both in construction and management. All parts of the building are kept as neat and clean as human hands can make them, thus instilling the moral idea of cleanliness into the minds of the bathers through the force of example. The yearly increase has averaged about 10,000 bathers, and the experience at this institution has been that the people appreciate the bath, showing this by their constant attendance. The bathers who, a year ago, took a bath once weekly, now take it twice each week. Workingmen and women, and those persons who have no facilities for bathing at home, furnish the majority of these bathers. The baths are used largely by men who formerly went to the bath-tubs in the barber shops, and the change was brought about by the greater facilities for cleanliness in the People's Baths. The results here have shown the people can be educated in cleanliness, if the opportunity be afforded. It is the desire of the association to build a larger building, on precisely the same plans, and under a similar management, as soon as funds are provided.

Date of opening bathhouse, August 17, 1891

Cost of bathhouse, exclusive of value of lot.....	\$27,025 58
Cost of operation for one year at 5 cents each for baths, beyond receipts from bathers.....	1,840 76
Total number of bathers from date of opening to March 31, 1894—two years and seven months:	
Men	120,780
Women	19,847
Children	15,710
Children, free	7,829
	<hr/> 164,166
Greatest number bathed in any one month.....	13,095
Greatest number bathed in any one day.....	1,033
Average number bathed per month for the whole period	5,295
Average number bathed per day for the whole period	172
Average number bathed per day in the winter months	140

Superintendent Taylor wrote to the committee in answer to an inquiry, as follows:

"After a careful estimate, we find that the 80,537 baths given by the Peoples' Baths last year (1893), represent about 4,000 different persons."

The Baron de Hirsch Trust Fund Baths are situated in an apartment-house at the southwest corner of Market and Henry streets. They occupy the basement and first floor, and were opened to the public in January, 1892. The entrance for men is from Market street, and that for women from Henry street. In front, on the first floor, are the waiting-rooms, divided by a partition, one being for men and the other for women. The office occupies a part of the waiting-room for men. Separate corridors lead to the baths of the men and women. On the Henry street side are located seven spray baths for women, one tub bath for children, two toilets and a washing sink. On the opposite side there are four spray baths for men. There is a dressing-room for each bather entered from the corridor by a screen door. This room is 4 1-2 feet by 4 1-2 feet in size, and contains a stool, a looking-glass, a shelf and clothes hooks, with a spring lock on the door. The bathroom is separated from the dressing-room by a half partition, and is 4 1-2 feet by 4 feet in size. It is made of corrugated, galvanized iron, open at the top, and is covered with enamel paint. The floor is made of cement, and is about six inches below that of the dressing-room. A douche is placed above out of the reach of the bather, which delivers the water at an angle so as to keep the head dry if this be desired.

The water flows from the bathroom floor as fast as it is delivered by the douche. There are two pipes, one containing hot and the other cold water, and each bather regulates the temperature and the amount of the water by means of valves under his control. When the valves are fixed the hands of the bather are free. There is a wooden seat under each douche, raised about twelve inches above the cement floor, and so placed as to be under the douche. In the basement, which is exclusively for males, there are 14 spray baths, one toilet, one washing sink and the engine-room. The waiting-room is connected with the basement by a stairway. The baths are exactly similar to those on the first floor. The rooms and bathrooms are well ventilated and lighted with gas. A matron attends to the women, and an experienced man looks after the men. The time allowed to each bather is 20 minutes, which is ample. A Turkish towel and a cake of soap are allotted to each bather. The hours of admission in winter are from 8 a. m. to 9 p. m., except on Saturday, when the baths are open from sunset to 10 p. m., and on

Jewish holidays, when they are closed. In summer they are open from 6 a. m., to 11 p. m., with the exceptions above mentioned. The fee for admission is five cents for adults, and three cents for children. The pupils of the Baron de Hirsch free schools and the Baron de Hirsch trade schools are admitted free. The towels are washed at an ordinary steam laundry outside the premises.

There has been a steady increase of about 12,000 bathers every year since the baths were opened, and the moral influence of the baths has already been noticeable in better habits among those who use them. The bathers prefer the rain bath to all others, it being not only efficient as a bath, but also because there is no possibility in it of contracting contagious and infectious diseases.

The fear of contagious disease among the masses is very great, amounting almost to a superstition, and that they understand some of the conditions under which diseases may be contracted is shown in their avoidance of the bath-tubs and towels of the poorer class of barber shops. If the people be taught what to avoid and how to live, the law of self interest will make anything popular among them that is shown to be efficient in adding to their health, comfort and working capacity.

SUMMARY.

Date of opening baths corner of Henry and Market streets, January 1, 1892.

Cost of plant for baths (about).....	\$10,000
Cost of rental of premises per year.....	1,500
Cost of operation for one year at five cents and three cents each beyond receipts from bathers (including rent for the year 1893) about.....	2,300
Total number of bathers from date of opening to October 1, 1894, (two years, nine months) ..	140,597
Men	109,095
Women	31,502
Children	(No record kept)
Free	Pupils of our English schools and trade schools.
Greatest number in any one month, July, 1894.....	9,235
Greatest number in any one day, September 30, 1894..	712
Average number bathed per month for the whole period.	4,261
Average number bathed per day for the whole period..	142
Average number bathed per day in the winter months..	97

The Demilt Dispensary is located on the northwest corner of Twenty-third street and Second avenue. It has six rain-baths and one tub-bath, opened to the public August 24, 1891, and all on the basement floor. In front is the waiting-room, then the office, and back of the office the baths. The rooms are lighted

by gas, well ventilated and heated by steam. The bather enters the corridor from the waiting-rooms and passes along it to a screen door opening into the dressing-room, which is four and one-half feet by three feet two inches in dimensions, and separated by a half partition from the bath proper. The latter is four feet by three feet five inches in size, with a depressed iron-basin eight inches deep forming the floor. The sides of the bath are marble. Above is the douche, out of reach of the bather, and set at an angle so as to deliver the water on the neck, shoulders and body. Each bath compartment is lighted with gas and well ventilated, and each has all the conveniences for comfort as well as perfect privacy. When the bather is ready he touches the electric button and the operator at the valve board turns on the water at the desired temperature, which is regulated by a thermometer directly in front of him. When the bather has finished his bath he gives the signal by again pressing the button, and the water is shut off. The size of the waste pipes is such that the water does not flow away as rapidly as it is delivered by the douche, and there is a sufficient quantity left in the basin to cover the feet of the bather.

The bath-tub is used for children and invalids, and is placed several inches above the level of the floor, so that mothers with children and the attendants of invalids can easily reach them while bathing them. It has a wide, rolling, enamelled rim. In all the baths hot and cold water mixed are used. A towel and a cake of soap are furnished to each bather. The time allotted to each bather is not over 20 minutes. The baths are open daily from 9 a. m. to 9 p. m., excepting Sundays and holidays, when they close at 12 noon. Tuesday and Friday afternoons and evenings are set apart for females, and the remaining time is for males. The fee for admission during the first year was 10 cents, but on the 1st of August, 1892, it was reduced to five cents, to make the baths more popular. If the bather be unable to pay the fee a free ticket is given him. It will be observed that the operator at the valve board has control of the water and not the bather. The towels are not washed on the premises, but by a woman at her home.

There has been a yearly increase of about 75 per cent. in the number of bathers since the baths were opened, and a marked increase was noted after the price was reduced. They are patronized by a good, working class of people, and are very popular. Many come for a bath two or three times a week, others come four, but the majority but once. They say the baths make them feel stronger, and better able to work. The baths have already proved a means of inculcating better habits in the bathers, who prefer the rain-bath because it is clean and free from the contagion of disease. The capacity of these baths is not

equal to the demand during the summer months, and on Saturday and Sunday mornings, and it is the intention of the trustees of the dispensary to increase the bathing facilities as soon as practicable.

Cost of bath at Demilt dispensary (about)	<u><u>\$3,000</u></u>
Total number of baths from October 1, 1891, to October 1, 1894.....	23,893
Average per month.....	664
Average per day.....	22
Men, since November 1, 1892.....	11,431
Women, since November 1, 1892.....	1,980
Greatest number any day.....	204
Greatest number any month.....	<u>1,894</u>
Persons bathing from October 1, 1891, to October 1, 1892	3,031
Persons bathing from October 1, 1892, to October 1, 1893	7,939
Persons bathing from October 1, 1893, to October 1, 1894	<u>12,923</u>
	<u><u>23,893</u></u>

ESTIMATED EXPENSES OF BATHS.

Salaries from October 1, 1891, to October 1, 1894 (\$300 per year).....	\$900 00
Coal (per year \$125).....	375 00
Gas, October, 1891, to October, 1892..	\$85 00
Gas, October, 1892, to October, 1893..	150 00
Gas, October, 1893, to October, 1894..	<u>135 00</u>
	370 00
Laundry, October 1, 1891, to October 1, 1892	\$55 15
Laundry, October 1, 1892, to October 1, 1893	73 61
Laundry, October 1, 1893, to October 1, 1894	<u>101 33</u>
	230 09
Soap, per year, \$60.....	180 00
Towels, per year \$12.....	36 00
Repairs per year, \$75.....	<u>225 00</u>
Estimated expenditures	\$2,316 09
Correct receipts	<u>1,275 65</u>
Excess of expenditures	<u><u>\$1,040 44</u></u>

Demilt Dispensary — Bath Report.

August 20th to September 16, 1893 and 1894.

DAY.	Date.	Males.	Females.	Total receipts.
	1893.			
Monday	August 21	14	.....	\$1 20
Tuesday	August 22	10	13	1 15
Wednesday	August 23	18	.....	90
Thursday	August 24	15	.....	75
Friday	August 25	7	18	1 25
Saturday	August 26	169	.....	8 45
Sunday	August 27	66	.....	3 30
Monday	August 28	35	.....	1 75
Tuesday	August 29	6	5	55
Wednesday	August 30	24	.....	1 20
Thursday	August 31	22	.....	1 10
Friday	September 1	6	9	75
Saturday	September 2	60	.....	3 00
Sunday	September 3	20	.....	1 00
Monday	September 4	7	.....	35
Tuesday	September 5	4	8	60
Wednesday	September 6	38	.....	1 90
Thursday	September 7	16	.....	80
Friday	September 8	5	11	80
Saturday	September 9	66	.....	3 30
Sunday	September 10	26	.....	1 30
Monday	September 11	10	.....	50
Tuesday	September 12	5	3	40
Wednesday	September 13	20	.....	1 00
Thursday	September 14	17	.....	85
Friday	September 15	4	4	40
Saturday	September 16	66	.....	3 00
Sunday	September 17	20	.....	1 00
Total .....	.....	790	71	\$42 55
Total males and females..	.....	851		

Demilt Dispensary — Bath Report — (Continued).

DAY.	Date.	Males.	Female.	Total rece pts.
1894.				
Monday	August 20	37	.....	\$1 85
Tuesday	August 21	8	10	90
Wednesday	August 22	35	.....	1 75
Thursday	August 23	45	.....	2 25
Friday	August 24	13	31	2 20
Saturday	August 25	163	.....	8 15
Sunday	August 26	83	.....	4 15
Monday	August 27	36	.....	1 80
Tuesday	August 28	4	28	1 60
Wednesday	August 29	30	.....	1 50
Thursday	August 30	35	.....	1 75
Friday	August 31	3	27	1 50
Saturday	September 1	126	.....	6 30
Sunday	September 2	52	.....	2 60
Monday	September 3	6	.....	30
Tuesday	September 4	5	15	1 00
Wednesday	September 5	54	.....	2 70
Thursday	September 6	42	.....	2 10
Friday	September 7	4	31	1 75
Saturday	September 8	88	.....	4 40
Sunday	September 9	85	.....	4 25
Monday	September 10	78	.....	3 90
Tuesday	September 11	7	14	1 05
Wednesday	September 12	33	.....	1 65
Thursday	September 13	35	.....	1 75
Friday	September 14	7	11	90
Saturday	September 15	122	.....	6 10
Sunday	September 16	80	.....	4 00
Total .....	.....	1,316	167	\$74 15
Total males and females..	.....	1,483		

Increase, males 536

Increase, females 96

Total 632 or \$31.60.



The Riverside association at 259 West Sixty-ninth street, is established for the benefit of the working classes, and is non-sectarian in character. An annual subscription of \$5 is necessary for membership. It has a free library. On June 1, 1894, its baths were opened to the public, but since September, 1893, they have been available to the members. They are located in a large dry basement of the association building, which is 25x95 feet in dimension, and is well lighted and ventilated. The floor is concrete throughout. On one side in front are a closet, four spray baths, four urinals and four marble wash-bowls, with hot and cold water, a mirror being placed above the bowls; while the engines and boilers for heating the building and the baths are on the opposite side. The private dressing-room of each bath is entered through a wooden door. It is four feet by four feet in size, with walls of wood, and contains a gas burner covered with wire, two clothes hooks, a mirror and a shelf with a brush and comb. The door is provided with a secure lock. The bathroom proper, four feet by four feet, is separated from the dressing-room by a canvas partition, which slides on an iron bar. The floor is a cement basin, six inches deep. The sides are of slate. A wire netting that extends to the ceiling above is placed between the baths at the top. A strong metal douche, circular in form, is above the head of the bather, but not out of his reach. The water is delivered at an angle, so that the head can be kept dry. There is one valve which is under the control of the bather. It governs the cold water only, and with it the bather can regulate the temperature by changing the proportion of hot and cold water. The towels are washed on the premises and thoroughly disinfected by hot water. The hot water used is supplied by a small boiler. Two towels and a cake of soap are furnished to each bather on entering the bath. The hours of admission are from 10 a. m. to 1 p. m. on week days, for females, and for males, 2 p. m. to 8 p. m. on week days, and Sunday from 7 to 11 a. m. The fee is five cents for each bather, but to the members of the various clubs of the association it is one cent.

The success of these four baths has been such that the trustees of the association have determined to add as soon as possible nine new rain baths of improved pattern. The experience of the past year shows the greatest appreciation of the benefits conferred and an increase of personal cleanliness among the patrons. There is a greater desire on the part of the working classes to avail themselves of the baths and their sanitary character has made them very popular.

The secretary thus writes in regard to them:

"You will understand that the baths were incidental to the other work of the association. It is only from the experience of the success of the few baths that has led the trustees to expend an additional \$8,000 to enlarge and improve the bathing facilities.

"It is expected that the future operations of the baths will show that by utilizing the basements of large buildings which are designated for no special purpose (providing the remainder of the building is used), the owners thereof, by placing baths in such basements, charging a fee of five cents a bath will realize a profit sufficient to pay janitors' wages and interest on plant. This we expect to do in future.

"Total number of bathers from date of opening to date of closing for alterations—a period of one year—nearly 6,000; greatest number in a month, 686, in July, 1894; greatest number in a day, 86; average number of bathers per month for the whole period, 500; average number of bathers per day for the whole period, 16.

"Average number bathed per day for the winter months I can not give. For the month of January, 1894, alone, the average per day was 15. I think I can safely guess at 10 as the average per day for the three winter months."

The Cathedral Mission baths at 130 Stanton street are in the basement of the mission. They were opened in July, 1892. There is one general entrance from Stanton street. A separate club-room in the basement is used as a waiting-room for each sex. There are four (spray and pool baths) for women, and one spray and one tub bath for men. In all six baths. A clean, coarse crash towel and a cake of soap are furnished to each bather before entering the bath. Close to the waiting-room for women are the dressing-rooms, which are entered through wooden doors with secure locks on them. Each dressing-room is four feet by three and a half feet in size and contains a seat, clothes hooks, a gas jet and a looking glass. It has a concrete floor. A rubber curtain sliding on a wooden bar forms a movable partition between the apartments. The bath-room is four feet by four feet in dimensions. Its walls are of galvanized iron and reach nearly to the ceiling. Its bottom is a concrete basin eight inches deep, with an orifice for the waste pipe into which fits a hollow metallic plug eight inches in length. The basin when filled forms a pool of water about seven inches deep. The pool is used by mothers with small children, and is found very convenient for bathing the latter. It is also utilized by adults. There is a seat on the right hand side, and sitting upon this, a mother can easily scrub her children. As many as three children can be

bathed at once. A heavy metallic douche is placed above out of the reach of the bathers, and delivers the water perpendicularly. The excessive water after the basin is filled passes away through the hollow tube. There are two valves which are under the control of the bather and regulate the supply of hot and cold water. The baths are well ventilated, but this part of the basement has not good natural light. In a large room, about 25 feet distant from the male waiting-room, is a spray bath for men. It consists of a douche similar to that already described, a concrete floor, and a waste pipe. It is open at the sides and it has no pool. In the same room with the spray bath is the tub bath, located on one side. It is likewise not inclosed at the sides by either partitions or curtains. It is similar in construction to the tub baths of other establishments. The dressing-rooms of both these baths is the remainder of the large room not occupied by them. The time allowed to each bather is 20 minutes. A competent matron attends to the women, and an experienced man to the men. The hours of admission are from 2 p. m. to 6 p. m., and from 7 p. m. to 10 p. m. every week day for both males and females. On Sundays the baths are closed. They are open to the members of the congregation during the whole year, but for the public they are open only from June 1st to October 1st. The fee for admission is five cents for each person excepting the members of the congregation and women sent by the nurses of St. John's Guild, who are bathed free. Hot water is employed in this establishment instead of steam. The towels are washed on the premises, and are disinfected by boiling water. There are separate apartments with toilets, urinals, mirrors, wash-bowls, brushes and combs for each sex. These two baths are well ventilated and lighted by sunlight. Mr. Richardson, the sexton, who has charge of the baths, states that in the last 22 months about 7,500 baths have been taken, and there is no doubt of the beneficial results of their use both physically and morally. The patrons are the members of the congregation and the people of the neighborhood. The latter consist largely of Russian and Polish Jews, who take on an average two baths weekly during the months that they are open for them, and the former average a bath a week during the whole year. The bathers like the rain-bath for two reasons, its cleanliness and the facility with which it can be taken without loss of time. It is necessary to increase the number of baths of the mission as soon as possible, for the supply is not equal to the demand. Two baths will be added immediately, as the money which has been derived mostly from the fees of the bathers of the six baths over their running expenses is at present available for that purpose. If a nominal rent of

\$25 a month were paid the baths would just about pay their expenses, so that the profit from them is in reality an accumulation of the free rent. As they are only open to the public during four months in the year they show the best financial results of any of the baths that have been considered. It will be noticed that the pool bath, a most useful means of bathing for children, is here used as an adjunct to the spray bath.

Date of opening of bath-house, July, 1892.

Cost of plant for baths, \$900; cost of rentals of premises per year, no rent; cost of operation for one year at five cents each, beyond receipts for bathers (including rent for 1894), receipts paid expenses.

Total number of bathers from date of opening to January 1, 1895, 7,500, for 22 months from February 6, 1893:

Men, 2,100; women and children, 5,400; free, only a few, no account taken; greatest number in any one month, 1,450; greatest number in any one day, 133; average number bathed per month for whole period, 340; average number bathed per day for whole period, 11; average number bathed per month in the winter months, 37.

Mr. Williams, of Brooklyn, the well known drop forger, has had a rain bath built in his factory for his employes. He states, since its introduction, the expense of the bath has been returned to him in the increased amount of work that has been done by his employes.

The advantages of the rain bath are many, and have been fully described by Dr. Baruch, the introducer of this precise form or bath in America. In substance they are as follows:

First. The outlay for tubs and their wear and tear is saved. If durable tubs are used, they are very expensive.

Second. Time, labor and expense are involved in filling the tubs and taking proper care of them. These are avoided in the rain bath, it being automatic, needing no special care easily kept in repair, and the rose being out of reach of the bather.

Third. The time for a rain bath is less than that for a tub bath. The force of the water hastens the removal of the waste matter on the skin, and as no dirty water comes in contact with the bather, the cleaning is more efficient.

Fourth. The space for a rain bath is about half that required for a tub bath, and the amount of water used is about one-half.

Fifth. There is absolutely no danger of communicating disease. Even if the attendant be careless, not a particle of contagious matter can be left behind, for the water will immediately carry it into the sewer.

Sixth. The rain bath is not relaxing like the tub bath, but, on the contrary, is invigorating. If it be followed by a cold shower, this effect will be more pronounced.

Seventh. Its privacy commends itself to women, girls and elderly people.

The rain bath cleans the body by warm or hot water and soap, and the temperature of the water can be regulated to suit the taste of the bather. It can be taken with benefit during the whole year, and the cost of a bathing suit is dispensed with.

The swimming bath is simply a tonic, and does not thoroughly clean the body. The bather wears a bathing suit and does not use soap. It can be taken only a few months in the year. When properly taken under intelligent supervision, and the water is pure, sea bathing is most useful, but as a means of cleansing the skin it can not be compared to the rain bath. The sewage of New York city empties into the East and North rivers, and it is doubtful if the water used at the free floating baths is fit to bathe in. A sanitary inspector of the New York Association for Improving the Condition of the Poor examined the water of one of these baths three years ago and found it contaminated with sewage. It was his opinion that it was situated too near the mouth of a large sewer.

If rain baths were located in the populous tenement-house districts, and were open to the people every day and night during the whole year, so that they could be utilized conveniently and quickly, there is no doubt they would become popular. The results already attained with them in this city conclusively prove this, and the popularity of the baths in Germany and Vienna have led to their introduction into schools, factories and barracks.

T. M. B. CROSS, M. D.

New York, December, 1894.

SUPPLEMENT NO. 7.

Reports on Rentals and Savings.

1. RENTALS.

To the Chairman of the Tenement-House Committee:

Sir.—There are four distinct types of tenement-houses in the city of New York. (1) The house with but one apartment on a floor, which includes dwelling-houses that have been remodelled or converted to tenement-house purposes; (2) the house with two apartments on a floor, entered from a common hall running through the house at the side; (3) the house with three apartments on a floor, two in front and one in the rear, with the hall in the center of the house, between the two front apartments, and leading to the rear apartment; and (4) the house with four apartments on a floor, with a hall running through the center of the house. This is the class known as the “double decker,” and usually has two stores or a store and liquor saloon on the ground or basement floor.

Judging from general information, a tenement-house of the first-class, namely, the single-flat house, when properly constructed, in accordance with the law, kept in good repair and in excellent sanitary condition, produces a net profit to the owner of about 9 per cent. upon the value of the equity; one of the second class, namely, the one with two apartments on a floor and with no improvements, such as baths, water-closets, etc., in each apartment, realizes a net profit to the owner of about 8 per cent. on the value of the equity; a house of the third class, namely, the three-flat house, realizes to the owner a profit of about 9 per cent. on the equity; and one of the fourth class, the “double decker,” about 10 per cent. on the equity. It is the usual custom of almost all tenement-house owners to place a mortgage of about one-half the value of the premises on the property, at 5 per cent. interest, thus enhancing the value of the rents and profits on the equity. The old tenement-houses, without any improvements, are the most profitable, because they require the least repairs to plumbing and pay a low water tax. The modern tenement-houses, in which every apartment is furnished with a bath, water-closet, etc., are less remunerative, because of the

constant repairs to plumbing and the high water rate. These figures, however, only apply to tenement-houses in which the owners observe all the requirements of the law and maintain them in good repair and in good condition.

A number of houses of the different types, in different sections of the city, have been examined by an architect and appraiser and the cost of buildings and land carefully estimated, where the value could not be obtained in any other way. The results of this investigation show net profits to the owner ranging from 8 to 15 per cent. It is probable, however, that the estimates on the valuations are below the market values of the premises, which would lower the percentage of profit to some extent.

The "double decker" is the most objectionable of the different types, usually affording the poorest accommodations to the tenant and the greatest profit to the landlord, or lessee; and the report of a house on Essex street is given, which is typical of the class. The premises consist of a plot of ground with a frontage of 24 feet 10 inches and a total depth of 50 feet. Upon this ground is a six-story building, occupying the entire width of the lot and 45 feet of its depth, leaving a yard 5 feet by 24 feet 10 inches in the rear. In this yard are five privies, two cess-pools for surface drainage and slops, and an old-fashioned pump, presumably for drawing drinking water from a cistern or well.

The first or ground floor of the building is divided into two stores, each with two smaller rooms at the back, and a central hall extending through the middle the entire depth of the building and opening upon the back yard. Stairways lead to the floors above. The stairs pass up through a central hall to the roof, the upper flight being covered by a bulkhead, with a door at the top which opens upon the roof. A part of the roof surface is inclosed by a fence and provided with posts for stretching clothes lines across.

Each story above the ground floor is divided into four apartments of two rooms, a living room about 11 feet by 12 feet, which serves as kitchen, dining-room, parlor, etc., and a bedroom about 8 feet by 9 feet. The living room in front receives light through a window which opens on the street and the rear apartments from a window which opens on the back yard. The bedrooms are dark, dingy and foul, receive no fresh air and get only borrowed light from small windows in the hall partitions and from the living room indirectly. There are no modern improvements except a sink in each hall supplied with cold water. There are fire escapes, both in the front and rear, with the regulation "ladders."

The upper halls are lighted by a skylight in the bulkhead and transom windows on the doors to the apartments. The halls are dirty and a most unsavory smell pervades the entire building.

The owner of this property leases the entire building to one person for \$2,000 per year, and pays the taxes and insurance. The lessee makes all necessary repairs, pays the water tax, gas bills for lighting the halls at night, janitor's fees and the expense of collecting the rents. The apartments rent on an average for \$8 per month. If fully occupied, the entire building would bring an income of \$251 per month or \$3,012 per year. The owner's expenses are about \$180 per year for taxes and \$25 per year for insurance, or a total of \$205 yearly, leaving him a net income of \$1,795.

The lessee's expenses are as follows: Three per cent for the cost of collecting rents, \$90.36 per year; janitor's fees, \$96 per year; water taxes, \$35 per year; gas for lighting halls, \$1 per year; repairs, \$50 per year; vacancies and defaults, \$222 per year; leaving a net profit to the lessee of \$500. These figures give the actual receipts and expenditures for the year 1893. In ordinary times, when business is good, the loss by vacancies and defaults in payment of rents would be much less.

The original cost of the building, according to an itemized estimate, did not exceed \$9,000. The land is worth about \$7,000, making a total cost value of \$16,000 for the first cost of the property. The present building covers about 90 per cent of the entire area of the lot. If it should be destroyed, the property would not be as valuable as it is at the present time, because it could not be built with the same number of apartments on account of the present laws, which permit but 65 per cent. of the lot to be covered by the building and which has been practically increased to 80 per cent. by the discretionary powers of the board of health, and the regulations as to air and light shafts. The city assessors appraise the property at \$10,000. Others estimate its value at from \$20,000 to \$25,000. The owner offers to sell it for \$26,000. From the above items, we find that the original investment of \$16,000 brings a gross return of 18.8 per cent., or a net return of 15.6 per cent., on the investment. Two years ago the two stores on the ground floor rented for \$10 less each than at the present time. Judging from this, the property increases in value rather than deteriorates, and so, no allowance is made for deterioration.

A detailed statement of the condition of the tenants of this house, as showing the relation between the earnings of the tenants and the profits of the landlord, is given:

FRONT APARTMENTS.

First story above stores, right.—Occupant, Polish Jew; family, himself, wife and four children; occupation, baster; wages received, \$12 per week for seven months of the year; rent, \$8 per month; clothing, \$75 per year; savings, nothing.

First story above store, left.—Occupant, Polish Jew; family, himself, wife and one child; occupation, tailor; wages received, \$4 per week; time lost for want of employment, refused; rent, \$7 per month; savings, nothing.

Second story, right.—Occupant, Polish Jew; family, himself, wife and five children; occupation, painter; wages received, \$1 per day; time lost for want of employment, three days per week; rent, \$9 per month; amount spent for clothing, \$50 per year; savings, nothing.

Second story, left.—Occupant, probably Hebrew; family, wife and two children; occupation, basters (both husband and wife); wages received, \$4 to \$5 weekly, each; no time lost for want of employment; rent, \$8 per month; savings, refused.

Third story, right.—Occupant, Polish Jew; family, himself, wife and six children; occupation, expressman; wages received, about \$8 per week; rent, \$9 per month; clothing, \$100 per year; savings, nothing.

Third story, left.—Occupant, Russian Jew; family, himself, wife and two children; occupation, laborer; wages received, \$1 per day; time lost for want of employment, two days per week; rent, \$8.50 per month; savings, nothing.

Fourth story, right.—Occupant, Hebrew; family, himself and wife; occupation, helper; wages received, \$7 per week; rent, \$7 per month; amount of savings, unknown.

Fourth story, left.—Occupant, Hebrew, widow; family, herself and one boy; occupation, men's neckties; wages received, \$4 per week; rent, \$7 per month; savings, unknown.

REAR APARTMENTS.

First story above store, right.—Occupant, Polish Jew; family, husband, wife and four children; occupation, baster; wages received, \$12 per week, for seven months of the year; rent, \$8 per month; clothing, \$75 per year; savings, nothing.

First story above store, left.—Occupant, Polish Jew; family, husband, wife and one child; occupation, tailor; wages received, \$4 per week; rent, \$8 per month; savings, nothing.

Second story, right.—Occupant, Hebrew, widow; family, herself and four children (all work); wages, \$18 per week; rent, \$7 per month; savings, nothing.

Second story, left.—Occupant, Polish Jew; family, husband, wife, two children and two lodgers; occupation, unknown (probably clothing); wages received, unknown; amount received from lodgers, refused; rent, \$8 per month; time lost for want of employment, three days per week; savings, unknown.

Third story, right.—Occupant, nationality unknown; family, husband, wife and two sons; occupation, janitor; wages received, \$5 per week; rent, \$7 per month; savings, nothing.

Third story, left.—Occupant, Hebrew; family, husband, wife and three sons; occupation, unknown; wages received, unknown; rent, \$7 per month; savings, unknown.

Fourth story, right.—Occupant, Hebrew; family, husband and wife; occupation, tailor; wages received, \$4 to \$6 per week; rent, \$7 per month; savings, unknown.

The fourth story, left, is vacant, and the entire fifth story is also vacant.

The report states that it is extremely difficult to get at facts concerning the condition of the tenants, and it is not certain that they tell the truth in regard to themselves. "One thing seems clear, they are poverty stricken and miserable, and no doubt find difficulty in securing remunerative enough employment to earn sufficient for food and clothing."

A statement has been received from a landlord, who has dealt in this class of property exclusively, giving in detail the rentals and profits of a four-story double house with two stores, situated in the twenty-first ward east of Second avenue, which were as follows: "The house is of the usual size, 25 feet by 75 feet, situated on a lot 100 feet 5 inches deep. The cost of the property was \$15,000, on which a mortgage of \$10,000 at 5 per cent. was placed. The rent of the two stores amounted to \$55 per month, and of the apartments, \$38, \$36 and \$34, for the second, third and fourth floors, respectively, making a total income of \$163 per month, or \$1,956 per year. The total disbursements—taxes, \$142; Croton water, \$36; insurance, \$10; gas, \$18; housekeeper, \$96; repairs, \$105; loss of rent, \$81; and interest on mortgage, \$500—amounted to \$988, leaving a net income of \$968, or over 19 per cent. profit on an investment of \$5,000. He says, however, that "from the above figures it should not be inferred that every tenement-house owner is making 19 per cent. on his investment. This same house in the hands of another (German) owner did not yield any such revenue. The average income of east side tenements, when well managed, is not more than 10 per cent. net on the equity."

A five-story "double-decker," of a better class, on East Tenth street, gave a gross return on the investment of 11.6 per cent.

There are in this building two apartments of three rooms each in the front basement, and four apartments of three rooms each, comprising a living room, kitchen and bedroom, on each floor above. The total valuation of the property is estimated at \$34,421, and the amount received from rentals is \$4,008.

A six story "double-decker," on Rutgers place, gave a net return of 8.8 per cent. on the investment. This building has two stores in the basement and five in the first story, and the five upper stories are arranged to accommodate 20 families. The estimated value of the premises is \$54,423, and the gross rentals received amount to \$5,564 per year. The total expenses, including repairs, gas for lighting halls, water tax, taxes on the property, and janitor's rent, are \$773, leaving a net return of \$4,791.

A five-story building, on West Thirty-eighth street, gave a net return of 10.53 per cent. This building has three apartments of four rooms each on a floor. The estimated value of the premises is \$36,145.40. The gross rentals received amount to \$4,260, and the total expenses amount to \$452, leaving a net return of \$3,808.

The last three houses are examples of the better class of tenements, provided with all conveniences and kept in good sanitary condition, the apartments renting from \$15 to \$20 per month. The results are interesting, as showing the relative returns on this class of property and the worst class of tenement property, which yields an excessive profit where no conveniences are provided and the sanitary laws are not complied with. Among the very worst class of tenements reported to the committee by the health department were those owned by certain individuals, estates and corporations and held in an inferior and unsanitary condition with the object of disposing of them at an advanced price when property in that neighborhood rises in value. This is particularly true of leasehold property in certain localities. The uncertainty of renewal keeps a lessee from making repairs, and the premises are allowed to run down until they are unfit for human habitation. The practice leads to the deterioration of tenement-house property in those localities, and affords inferior housing to those who are not able or not willing to pay the high rentals in better localities.

The result of the inspection by the committee of the first group of houses (2,425) showed that the average monthly rental of apartments, having an average of 2.4 rooms and an average of 3.7 persons to each apartment, was \$9.91, and the average weekly income of all the occupants \$9.04. In other words, the

occupants are expending one-fourth of their total income in rent. Miss Woolfolk, who personally investigated 600 families under the direction of the College Settlement Association, says: "I found, in my investigations, that among these 600 families, 27 per cent. of the earnings were expended in rent, and that for one room the average rent was \$4.24; for two rooms, \$8.08; for three rooms, \$10.75; for four rooms, \$14.46; and for five rooms, \$19.66. Of the 600 families which I have investigated, more than two-thirds were living in one and two rooms; this two-thirds included 21 cases of families living in one room. In the two-room apartments there was one dark bedroom, a room which usually has no external ventilation, and could be used for no purpose except a bedroom, so that the term two rooms does not indicate the space that is ordinarily meant by the expression. I found one case of 11 people in two rooms; it was in a rear tenement on the ground floor. I went into the tenement at night, and the rooms were very close and uncomfortable. I asked the woman who was there why she did not open the windows. She told me that the windows would not open. I found, upon investigation, that the windows had fastenings that were out of order, and so they had been nailed up at the top, in order to keep them closed, and the only way they could be opened was at the bottom. It was a cold night, and so the people could not sit in the room with the window open at the bottom. I went into the bedroom and looked at the window there. About a foot from the window there was a brick wall, extending up to the second floor, the wall of some building from the other street that had been built in. So these 11 people had no opportunity for ventilation whatever. I have found in almost every case, when you go in from the street, the hall is almost black. In some cases you can not see at all, and only know that some one is approaching from the sound of footsteps; after you have been in the halls for some time, they seem very dull and gloomy, but you can see to detect a person approaching; but they are too dark to be properly cleaned and cared for. The tenants, in going to the sinks in the halls, have great difficulty in caring for them, and in avoiding spilling the water on the floor. We find many cases where the floors are wet from water being spilled and not cleaned up, and it is partially due to the fact that the halls are so dark. The more recent tenements, those constructed within the last 15 years, are provided with airshafts. In the ordinary tenement the airshaft is literally a well, extending from the cellar to the roof, and the windows of the kitchen of these houses and the bedrooms open into it. These tenements are divided into apartments of three rooms each, one room opening into the street or

on the court from the rear apartment and the kitchen and the bedrooms opening into the airshaft. One airshaft lies between two adjoining houses, and the windows of the two open into it. One of the great evils of tenement-house life is the publicity, and the airshaft adds to this, not only increasing the intercourse between the rooms, but between the two adjacent houses. The bad air from one room is poured out into the airshaft, to be taken into the other rooms; there is no opportunity for it to pass out, and so this foul air is simply circulated from one apartment to the other, from the bedrooms and the kitchens of the two different houses." (See testimony, November 23.)

The United States census report of the slum districts in New York, on two different sections of the city, is as follows: First. Starting from the northeast corner of Center and Worth, along the east side of Center to Leonard, along the south side of Leonard to Baxter, along the east side of Baxter to Canal, along the north side of Canal to Center, along the west side of Center to Hester, along the south side of Hester to Mulberry, along the east side of Mulberry to Spring, along the south side of Spring to Elizabeth, along the west side of Elizabeth to Canal, along the south side of Canal to Bowery, along the west side of the Bowery to Worth, and along the north side of Worth to Center. Second. Starting from the northeast corner of Broadway and Broome, along Broadway to East Houston, along the south side of Houston to Elizabeth, along the west side of Elizabeth to Prince, along the north side of Prince to Marion, along the west side of Marion to Spring, along the north side of Spring to Crosby, along the west side of Crosby to Broome, and along the north side of Broome to Broadway. The total population on April 1, 1893, was 28,998, consisting of 5,912 families. The average size of families was 4.90 and the preponderating families, five persons. Of the total population, 12,434 were reported as wage-earners—2,261 earning under \$5 per week; 4,810, between \$5 and \$10; 3,305, \$10 and over; and 2,058 not reported. These 5,912 families occupied 5,582 tenements, having a total of 15,442 rooms. The greatest number of tenements to a house was 29; the percentage of families living in one room 5.62; in two rooms, 44.55; and the average number of persons to a room, 2.14. Only 138 families (1,888 persons) were living in apartments have bathrooms. The sanitary condition of the tenements inside was as follows: (1.) As to light and air, 43, excellent; 2,708, good; 1,848, fair; and 1,034, bad. (2.) As to ventilation, 54, excellent; 2,373, good; 1,843, fair; and 1,363, bad. (3.) As to cleanliness, 201, excellent; 2,001, good; 1,974, fair; and 1,457, bad. Of 27,927

persons reported, the average number of cubic feet of air space in sleeping apartments was 412 per person. Six thousand five hundred and seventy-six persons occupied sleeping apartments with no outside window; 10,784, sleeping apartments with one outside window; and 9,560, sleeping apartments with two outside windows.

For these accommodations, 84 persons were paying weekly rent under \$1; 2,036, from \$1 to \$2; 1,775, from \$2 to \$3; 994, from \$3 to \$4; 182, from \$4 to \$5; 97, from \$5 to \$6; 57, from \$6 to \$7; 10, from \$7 to \$8; 7, from \$9 to \$10; 28, \$10 and over; and 304 not specified. The average weekly rentals of 69.77 per cent of the total 5,582 tenements was between \$2 and \$3 per week.

Mr. Graham has furnished to the committee the results of a recent investigation of that section of the city lying between Houston street and East Fifth street on the north, Essex street on the east, Hester and Canal streets on the south, and Broadway and Bowery on the west. This section was chosen because there was there a concentration of three distinct nationalities. He found that the fifteen blocks on the north were inhabited mainly by Germans, the 42 blocks on the south almost entirely by Russian and Polish Jews; and the remaining blocks by Italians. The population of the whole section consisted of 94,015 persons, of whom 16,391 occupied the German section; 49,359, the Jewish section; and 28,266, the Italian section. Of a total number of 19,191 families living in the whole section, 13,911 occupied tenements of two or three rooms; 3,459 of four rooms, while only 626 occupied houses. The average monthly rental paid by families occupying five rooms was \$21.39; for four rooms, \$15.38; for three rooms, \$11.12; for two rooms, \$7.86; and for one room, \$5.04. (See Test. November 23d.)

In the class of tenement-houses located in this section "there are usually four or more families on a floor; the halls and staircases are narrow and dimly lighted, and the bedrooms are dark closets, ventilated from an interior well. Add to this the fact that 12,244 lodgers, usually males, form part of the families of this area, and it is not difficult to understand how serious a menace it is to the purity of family life, or the decent training of children. We select a typical block from each of the Jewish and Italian quarters. By reference to the map it will be observed that block 40, lying between Delancy and Broome, Allen and Eldridge streets, contains 37 front and one rear tenements with a total population of 1,844, or 48.5 to each tenement. In the Italian quarter in Mott and Spring streets, we have the following returns: Tenement of

three rooms; rent, \$11 per month; husband, wife, four daughters (eldest 18), two sons, and eight male lodgers; total, 16. Tenement of two rooms; rent, \$8 per month; widow, son and nine male lodgers. Tenement of three rooms; rent, \$9 per month; husband, wife, one daughter (age 18), two sons; married lodger, wife, three daughters (14 and 16), one son and four young men lodgers; total, 15 persons. In families like the above, unskilled laborers earning low and uncertain wages state that they can not pay the high rentals without lodgers, and that it is one of the conditions of their being able to keep a roof over their heads." (Social Statistics of a City Parish, by Robert Graham, pp. 40-41.)

As it requires 1,200 cubic feet of fresh air every hour to each adult for good health, and, in many cases, apartments, with a total capacity of not over 2,500 cubic feet, accommodate 10 and 15 people, with no opportunity for a supply of fresh air, it is difficult to understand how intelligence or a semblance of health can be found in such quarters.

A comparison between the rentals of tenement-houses in New York and those of European cities, shows that the rents here are nearly, if not more than double, the prices paid in many of the European cities for equal accommodations. The committee have received from the United States Consuls, at London, Liverpool, Glasgow, Berlin and Brussels, through the State Department of the United States, full reports on the housings of the working classes in those cities.*

In London, a number of private corporations have erected model dwellings for the working classes, affording superior accommodations at a slight increase in price over the other tenements in the same localities. The Peabody Trust has provided for the artisan and laboring poor 5,070 separate dwellings, consisting of 11,273 rooms, with accommodations of bathrooms, laundries and wash-houses. The number of persons accommodated on December 31, 1893, was 19,937; an average of 3.9 per dwelling. The average weekly earnings of the head of each family amounted to \$5.90. The average rent of each dwelling was \$1.19 per week, and of each room 54 cents. The Guinness Trust owns 1,875 tenements, containing 3,705 rooms, accommodating 3,245 persons. The average weekly rent of a tenement is 99 cents for an average of two rooms to each tenement.

In Liverpool, the corporation has erected on expropriated unsanitary property, what are called "four-roomed" cottages,

* Since this report was prepared, a report from the consul-general at Paris has been received too late for use.

which rent from \$1.38 to \$1.50, the average rental being about \$1.45 per week. The courthouses which these dwellings replace let from 38 cents to 88 cents per week, and front houses from \$1 to \$1.25.

In the city of Birmingham, the corporation, under the Artisans' Dwellings Act purchased 43 acres of land at a cost of \$8,285,000. "On a portion of the land thus acquired and formerly occupied by a block of back to back tenements, the corporation built 22 workmen's cottages of five rooms each. They cost \$20,000, were equipped with the best sanitary appliances, and were rented at \$5.28 per month, without loss to the city. After adding 25 per cent. for rates and taxes, it will be seen that the rental is not half what would be paid for similar accommodation in New York." (*Social Statistics of a City Parish*, by Robert Graham, p. 43.)

In Glasgow, 24.7 per cent. of the total population live in houses of one apartment, 44.7 per cent. in houses of two apartments, and 16 per cent. in houses of three apartments. The size of the average house is 2.3 rooms, each occupied by 2.04 persons. The average rental is \$56.69 per year for the whole city.

The report of the consul at Brussels on the subject of rentals contains a report on the habitations of workingmen made to the committee of patronage in 1890. There were at that time 4,601 workingmen's dwellings, accommodating 19,284 families. The number of families occupying an entire house was 491; 3 rooms, 1,371; 2 rooms, 8,058; 1 room, 6,978; attic room, 2,168; cellar, 200. The average monthly rental for one room was \$2.25; and the average daily income 60 cents.

The report of the consul-général at Berlin would seem to show that the condition of a certain part of the working classes there is worse than in any other foreign city from which a report has been received. The tendency has been to construct high-priced apartment houses for the accommodation of people in good circumstances, while the housing of the working classes has received no attention. The rental for cheap lodgings has increased, in consequence, while wages and salaries have fallen. "An average laborer or small official with wife and child should have from 1,575 to 1,750 marks* annual income, to occupy the smallest quarters, reckoning his rent at one-fifth his income. The average daily wage of an adult is only 2.40 marks, which at 300 working days, a very favorable conjunction, gives but 720 marks annually. Now the rent of one room and kitchen in the house-back, where air is poor and often foul, is reckoned, average, from 230 to 270 marks. Rent of an apartment with one two-window

* A mark is equal to \$0.2381.

room, one one-window room and kitchen, 315 to 350 marks. Rent of an apartment with one two-window front room, one one-window back room, corridor and kitchen, averages 450 marks. A workman, wife and child must, therefore, spend about 315 to 350 marks annually on his rent alone, or nearly one-half of what he makes as an average wage-earner. Hence it is necessary that wife and children must work to help pay the family's way, and any small floor, bed or sofa space that can be squeezed out is let to more or less permanent tenants for the night."

From these reports, it will be seen that while rents are considerably lower abroad than here, yet the ratio of rentals to income is nearly the same; and the amount remaining for living expenses is much greater here, owing to larger incomes.

2. SAVINGS.

The results to be obtained from an examination in regard to the savings of the working classes, it must be stated at the outset, are far from accurate or satisfactory. The natural objection to giving information of this character has made it impossible to include the question of savings in the house to house inspection carried on by the committee in the investigation of tenements and their occupants, and nothing in the way of statistics can be given. When the miserable and apparently poverty-stricken condition of the tenement classes in certain localities is considered, it is difficult to understand how there can be any surplus over the daily expenses in the majority of cases.

The annual report of the Banking Department on the condition of the 25 savings banks in the city of New York shows that on the 1st day of July, 1894, there was \$344,248,314.92 due depositors on 817,685 open accounts, or an average of \$421.04 for each account. During the year ending June 30, 1894, there were 137,550 accounts opened, and 145,811 accounts closed, a falling off of 8,261 depositors for the year. The total deposits received during the year amounted to \$84,252,090.06, and the total amount withdrawn \$99,392,220.40, being an excess in withdrawals over deposits of \$15,140,130.34, or, taking the total number of accounts during the year as 825,946, an average decrease to each account of \$18.33. The excess in withdrawals over deposits during this time was undoubtedly caused by the financial depression of the country, which has fallen most severely on the wage-earning classes.

The annual report of the Citizens' Savings Bank, Bowery and Canal street, for the year 1893, shows that from 49,574 deposits the sum of \$3,856,527.52, including interest credited, averaging

\$77.79 to each deposit, was received. During the same period of time, there was withdrawn the sum of \$5,088,162.61, averaging \$90.71 to each withdrawal. At the end of the year there was held by the trustees, for 29,116 depositors, the sum of \$10,568,421.32, averaging \$362.97 to each depositor. The number of accounts opened during the year with new depositors was 6,518, the greater number of which was with the wage-earning classes. Of this number, 998 were Americans, and the rest foreigners—2,250 Russians, 823 Germans, 900 Austrians, 703 Poles, 139 Irish, 87 Italians, and 610 miscellaneous. Of the new deposits, 3,996 were in sums not exceeding \$5; 8,846, between \$5 and \$10; 10,434, between \$10 and \$20; 6,933, between \$20 and \$30; 2,081, between \$30 and \$40; 3,993, between \$40 and \$50; and 1,296, between \$50 and \$60.

The Bowery Bank, at Bowery and Grand street, has prepared for the committee a classification of new depositors residing east of Bowery and south of Fourteenth street, for the months of October, 1893, and October, 1894. During October, 1894, there were 445 new accounts opened, aggregating \$59,007, or an average of \$132.60 to each depositor. Of these new depositors, 189 were reported as having no occupation. During October, 1893, there were 260 new accounts opened, aggregating \$47,394, or an average of \$181.51 to each depositor. Sixty-three depositors were reported as having no occupation. In most cases where no occupation was given, the depositors were married women. These statements include all depositors, and the average is increased to some extent by the deposits of shopkeepers and business men, but the majority were made by wage-earners. It is also probable that some of these new deposits were transferred from one bank to another.

A new agency for savings, under the name of the Penny Provident Fund, has established stations in different parts of the city, where small savings may be deposited and which, in many cases, have served as a nucleus from which accounts have been opened with the different savings institutions of the city. The expenses of the society are maintained entirely by subscription, but as the sub-stations are located in the quarters of charitable organizations or where there is no charge made for conducting them, the expenses of the society are small. The annual report for the year ending January 31, 1894, shows that there were 231 stations, at which net deposits amounting to \$17,542.87 had been received from 30,991 depositors. On December 31, 1894, there were 293 stations established in the city, at which \$31,555.66 had been received from 43,000 depositors. The fund was created mainly for children, but it has been found that adults are availing them-

selves of the privileges of the society. "There is on exhibition at the central office of the fund a frame containing eight stamp cards, which represent the joint savings of a mother, father and six children. The amount thus saved is \$63. It was saved in less than six months, and deposited in a savings bank. This family had never saved a cent before."

In addition to the savings deposited in this country, large amounts are sent abroad annually, by persons who have emigrated from European towns, but it has been impossible to get definite information in this particular. It is said, however, that certain localities of continental Europe derive their support almost entirely from money sent them by former residents, who have emigrated to America.

Through the efforts of the Charity Organization Society, a new pawnshop, under the name of the Provident Loan Society, has been organized, with a view of providing the working classes with loans on personal property at a comparatively low rate of interest, and an opportunity of redemption by installment payments. The society began business on May 21, 1894, with a capital of \$100,000, and after six months of active operation, has issued a special report, and call for increase of funds to meet the growing demands upon its capital. From May 31, 1894, to November 30, 1894, the society had loaned \$195,040.50 on 12,286 pledges. The total amount repaid was \$65,307, on 4,494 pledges, leaving outstanding, November 30, \$129,733.50, on 7,792 pledges. The average amount of loan has been \$15.87, and the average amount of loan redeemed \$14.53, leaving the average amount of loan outstanding \$16.65. The interest rate has been reduced by the society to 1 per cent. per month, and no additional charges have been made for tickets or for storing goods, or for wrapping or hanging them up, as is customary with other pawnshops. On a capital of \$250,000, the society estimates a net profit of \$22,500 yearly, which would enable the payment of 6 per cent. interest on the capital, and leave a surplus of \$7,500 to be applied as a reserve fund to provide for losses. The report states that it is difficult to give exact information as to the occupation and race of the pledgors. "There were a great many laborers, mechanics, small storekeepers, etc., and since the society moved in its new quarters, with a special women's entrance; the number of women customers has greatly increased. Many of the society's customers, perhaps the majority, were Hebrews from the lower East Side below Houston street and east of the Bowery."

Miss Woolfolk, as the result of her investigation of 600 families on the East side, testified as follows before the com-

mittee: "Among the English speaking people—under this head I include Americans, English and Irish—the average amount that could be expended per day for the food of an individual was 11.9 cents; for clothing, 3.3 cents. Among the Jews—Russian, Polish, Hungarian and German Jews, inclusive—the average daily amount expended for food per individual was 9 cents; for clothing, 3 cents. Among the Italians, 11 cents for food; 3.6 cents for clothing. Among the Germans, 10 cents for food; and 3.3 cents for clothing. The Italians and English speaking people seemed to have the largest amount to expend. Among the Italians this does not indicate an increase in wages. For nearly all the Italians I investigated were living under a certain co-operative plan of housekeeping, several families living together, paying their rent and purchasing their supplies in common. In this way they were able to have a larger amount of food and ampler quarters—usually three rooms for a smaller expenditure of money by the individual family." (Testimony, November 23d.) This would be an average of 13.8 cents per individual expended for food and clothing. Applying these figures to the results obtained by the committee from the inspection of a particular group of houses, showing an average family of 3.7 persons, with an average income of \$9.04 per week, and expending \$9.91 per month for rent, it *would* leave a surplus as savings amounting to \$168.50 per year for each family, above the expenditures for rent, food and clothing. It is extremely doubtful, however, if any families under these conditions actually save such an amount.

In connection with the foregoing, the annual reports of the numerous charitable societies throughout the city are interesting as showing the number of persons who not only do not save but are not able to provide the necessities of life and are the objects of charitable relief. The annual report of the New York Association for Improving the Condition of the Poor, for the year 1894, shows that 18,230 cases were relieved by an outlay of \$66,659.98, and 5,627 applications worthy of relief were referred to other sources of relief. During the year that has just passed, it is probable that many cases of distress were relieved which would not have required assistance had it not been for the hard times. During the year ending September 30, 1892, this association relieved 8,589 families, consisting of 38,227 persons, by an outlay of \$14,923.77. In other words, the number of cases relieved during the past year is more than double those relieved in 1891-1892, and the amounts distributed more than four times as much. The annual report of the

Charity Organization Society of the City of New York for the year ending January 9, 1894, shows total disbursements by the society amounting to \$43,103.01. The relief granted by the United Hebrew Charities during the same year amounted to \$177,513.89, including all expenses, and a total of 55,309 persons were assisted in various ways by the organization during the year. In addition to these, there are numerous other secular institutions and private benefactions so that it is impossible to give an estimate of the total amount expended from the various sources in this way.

ADELBERT L. REYNOLDS.

December 31, 1894.

SUPPLEMENT No. 3.

Tenement-House Fires.

AN INQUIRY INTO THE NUMBER OF TENEMENT-HOUSE FIRES; THE DEATHS AND INJURIES RESULTING FROM THE SAME TO OCCUPANTS AND THE PERCENTAGE OF FIRES OCCURRING IN TENEMENTS CONTRASTED WITH THE TOTAL NUMBER OF FIRES WHICH HAVE OCCURRED IN THE CITY OF NEW YORK FOR THE YEARS 1884 TO 1894, INCLUSIVE.

The subjoined totals showing the number of tenement-house fires which have taken place in this city for a period of 11 years, to wit, from January 1, 1894, to December 31, 1894, have been carefully abstracted, under my direction, from the records of the New York fire department. They contain the following facts:

(1.) That 177 people who were occupants of these houses have either been killed or fatally injured as a result of tenement-house fires.

(2.) Five hundred and twenty-three occupants of these houses have been injured in consequence of fires.

(3.) Six hundred and twenty-five occupants have been rescued from fires by firemen. In regard to rescues of life as recorded by the department, no record is made except when it involves the element of personal risk to the firemen undertaking the rescue. As a matter of fact rescues are constantly being made by the members of the fire department, not coming within the scope of its official cognizance, and indeed were it not for the exercise of the correct and instantaneous judgment, skill and constant vigilance of the members and officers of the department, the casualties and fatalities resulting from tenement-house fires would make an appalling list. As it is, the number of lives sacrificed in this manner are due to causes which have been brought out in the expert testimony of those experienced and familiar with the causes of tenement-house fires and the character of these fires. The predominating cause exists in the

Map of New York City

SHOWING THE LOCATION OF FIRES OCCURRING DURING THE YEAR 1893.



[From the Annual Report of the New York City Fire Department]

structural conditions of these buildings. These structural defects and omissions are such as to invite the almost instantaneous spread of fire immediately upon its outbreak from any cause. The actual origin, frequency and character of fires themselves, I attribute chiefly to sociological conditions under which such a large proportion of our population live, and indeed broadly I consider fires in tenement-houses equally a problem in sociology as much as I do a matter relating to the art and practice of fire extinguishment. The frequency and variety of causes of fire in tenements is an inevitable condition, following upon a large population of not the highest order of intelligence densely crowded into habitations of the prevailing type of tenement structure.

The records of the fires occurring in this city for 11 years past aggregate a total of 35,848. Of these 19,059 or 53.18 per cent. originated in tenement-houses. From an enumeration of all classes of structures in the city in 1890, and a calculation of the buildings completed since, it appears there are 126,000 buildings, of which 39,138, or 31.06 per cent. are tenement-houses. Thus, 53 per cent. of the duty performed by the fire department in the matter of fire extinguishment is devoted to tenement-houses, whereas these houses constitute only 31 per cent. of the total number of buildings at risk.

Seventy per cent. of the entire protection extended by the department to the lives and security of people from fire in this community is given to the population living in tenement-houses, this being the percentage of population who live in tenements. The fact that the inherent defects in the conditions of tenement-house construction and life demand so much of the strength of the department, exposes certain districts in the city to the hazard of a serious fire which can menace the safety of a large area, because the fire companies assigned to a particular station may be absent from quarters at a tenement fire, and the fire companies left in quarters to respond will have to come from more distant points. These are technical considerations which can not be detailed here, but which can be cited to illustrate that the tenements demand an undue proportion of fire protection afforded and maintained by our authorities, and in extending this protection it is liable to permit an incipient fire in more dangerous neighborhoods and structures and the contents of the same to gain such headway, as to constitute a great danger. It is true that the saving of life in the official work of the department is recognized as overshadowing the claims of any property which is threatened with destruction, but the fundamental conditions which permit of such frequent tenement-house fires need correction so that the safety of any considerable portion of the city may not be so often menaced from the causes herein pointed out.

The specific recommendations essential to the improved conditions of tenement-houses, having in view the minimum danger from fire and the safety of the occupants in such an event, can be briefly summarized:

First. The complete separation of the cellar from any other floors, by fireproof construction, prohibiting any interior communication between the cellar and up stairs.

Second. The wall between any store and hallway in a tenement-house to have no doorway or other communication between such store and hallway, except the same be fireproof and self-closing.

Third. Fireproof stairways.

Fourth. No closet for storage or other purposes to be permitted underneath any flight of stairs.

Fifth. Ample fire escapes, of proper construction, in the front and rear, leading to the roof, as well as to the street.

Sixth. Every tenement having separate or party wall to be required to erect independent fire escapes.

Seventh. Hallways to afford ample natural or artificial light at all hours, day or night.

SIMON BRENTANO.

New York, January 15, 1895.

FIRES IN TENEMENTS.

This table comprises the total under each head for 11 years, from January 1, 1884, to December 31, 1894.

Total of fires in tenement-houses	19,059
Occupants killed	177
Occupants injured	523
Occupants rescued	625
Firemen killed	3
Firemen injured	453
Number of fires originating in cellar	1,910
Number of fires originating in basement	1,451
Number of fires originating in first floor	4,520
Number of fires originating in second floor	3,747
Number of fires originating in third floor	3,377
Number of fires originating in fourth floor	2,136
Number of fires originating in fifth floor	1,148
Number of fires originating in sixth floor	164
Number of fires originating in attic	46
Number of fires originating on roof	282
Number of fires originating in chimney	69
Number of fires originating in awning fires	209

SUPPLEMENT No. 9.

Reports on Three Typical Tenement-House Fires

FIRE AT No. 12 SUFFOLK STREET.

Architect's Report.

This structure is an old-fashioned five-story tenement, with a frontage of 25 feet and a depth of about 70 feet. The yard in the rear is 25 x 30. The ground floor was occupied before the fire as stores; one a liquor saloon where the fire originated, and the other a butter and egg market. Between the stores is a long dark passage three feet four inches wide, leading to the staircase hall in the middle. This passage extends to the rear of the building where a door opens to the yard in which a school sink is located. This school sink occupies about 50 square feet of the yard space.

From this dark hall in the first story run wooden stairways two feet eight inches wide to the upper stories; on each floor are apartments for four families, each apartment consisting of a "living room," 11 feet 9 inches by 15 feet 3 inches, lighted by two windows in the outside walls, a bedroom 8 feet 3 inches by 8 feet 9 inches, lighted by a window 2 feet 6 inches wide and 3 feet 6 inches high, placed in the hall partition, as near as possible to the ceiling, and a kitchen 6 feet by 11 feet 9 inches between the other rooms. The kitchen receives only borrowed light from a window 5 feet by 5 feet, placed in the partition dividing it from the living room, and by a glazed door which receives light from the hall. The entrance door from hall is in this room. Only one of the three rooms receives direct air and light from the outside; the bedroom and kitchen being dependent upon borrowed light are absolutely void of any means of obtaining fresh air. The air is vitiated by lamps and oil stoves used for cooking purposes.

The upper halls are lighted by a skylight in the bulkhead on the roof above the stairway hall, and by small headlights over the hall doors. An old dumb-waiter shaft, 2 feet 4 inches by 2 feet 6 inches extends to the top and communicates with the hall of each story, the opening being closed by a wooden door. This elevator shaft had not been in use as a dumb-waiter

for a long time, but was utilized by the tenants as a place to stow tubs, ash cans and all sorts of rubbish. The elevator shaft was built of wooden studs, lathed and plastered on the outside and ceiled on the inside with tongued and grooved boards—virtually a tinder box which drew the flames directly to the upper stories.

The floor beams are light, 3 inches by 8 inches, placed 16 inches from centers, with a single floor on top and lathed and plastered ceilings below. The supporting as well as all minor partitions are hollow, being built of 3 inches by 4 inches studding, lathed and plastered both sides. The stairs were entirely of wood, supported on 3 inches by 6 inches carriages and ceiled on the soffits with tongued and grooved boards. The halls were also wainscoted with tongued and grooved stuff very inflammable.

The ceiling of top story was suspended from the roof-beams, leaving an air-space above, which increased the draughts.

The brickwork of the building is rough. It was laid in lime mortar of medium quality. The mortar used in plastering the walls and ceilings is composed chiefly of sand, and peels off at the slightest occasion.

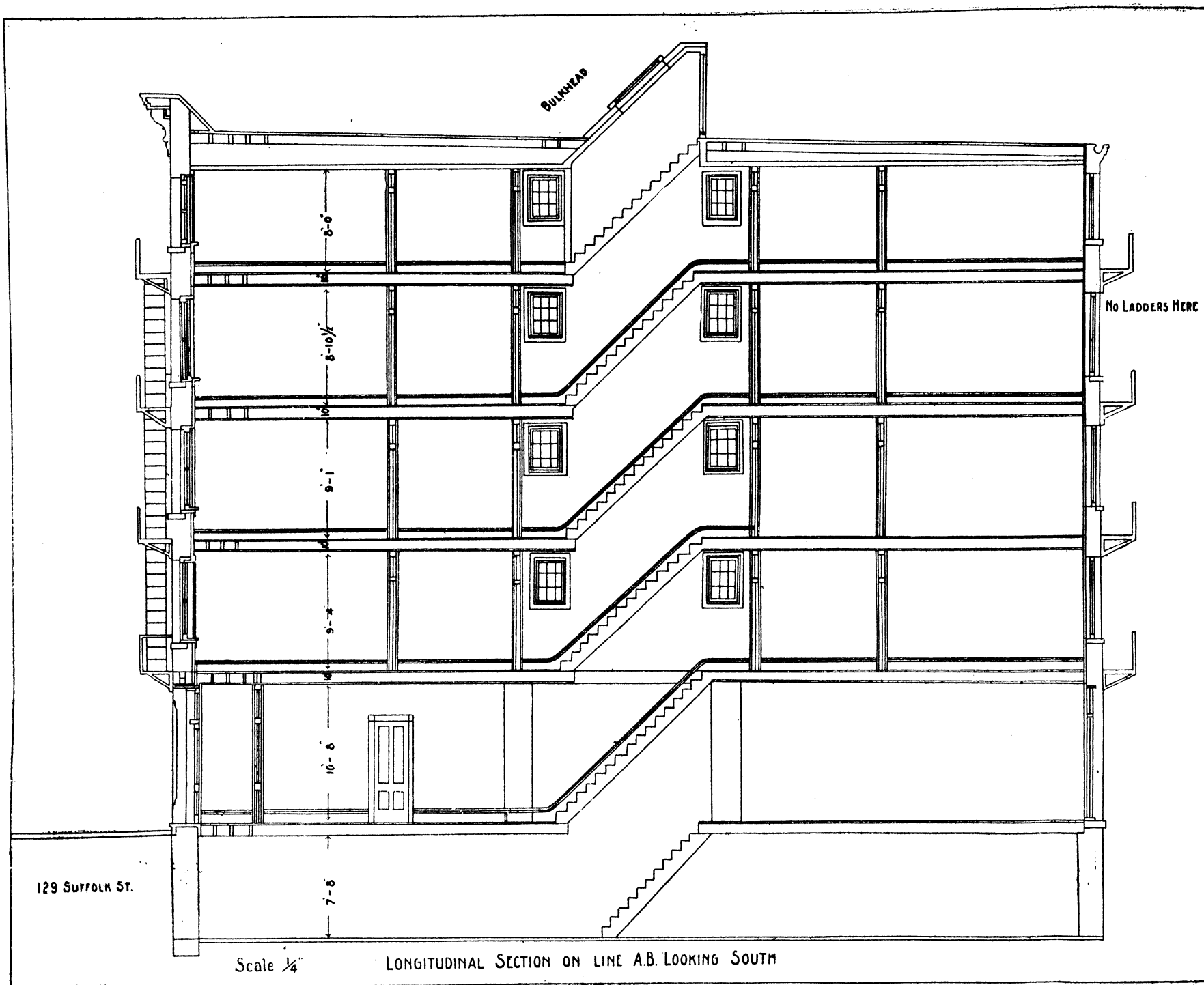
There are three fire escapes; one in Suffolk street, 2 feet 6 inches by 12 feet, with ladders, in the usual way; one in rear, 2 feet 6 inches by 6 feet, with ladders, for the apartments over the butter and egg store, and one 2 feet 6 inches by 12 feet, without ladders, to be utilized by the inmates of the apartments over the saloon and for one suite of apartments in the adjoining house.

The basement of the building was used for coal-bins and ice for the saloon. No damage was done by the fire there.

The only plumbing in the building is a sink in each kitchen supplied with cold water.

It seems certain that the fire started in two places simultaneously—in the front and in the rear of the saloon—and spread with great rapidity into the hall and up the dumb-waiter shaft. The appearance of the furniture in the various apartments shows that the inmates had barely time to escape with their lives. The greatest damage was done by the fire in the top stories, the furniture in the lower apartments in many cases being merely blackened by smoke.

William Rutz, a bright boy of 13, who lives with his parents in one of the rear apartments of the third story, says: "Our family consists of my father, Peter Rutz, 38 years of age, and my mother, Elizabeth Rutz, about the same age; myself and brother, Peter, nine years old, who was slightly injured on the leg; brother Charlie, eight years old; Eddie, four years



Longitudinal Section of 129 Suffolk Street, where Child was Suffocated.



old; my sister Lizzie and the baby, and my little cousin, Lizzie Jaeger, four years old, who was lost in the fire.

"Many blame father because he did not save my cousin, Lizzie. He tried hard to get her, but the fire got so quick, he couldn't get in there, and the flames came out of the windows so much that no one could get on the fire-escapes after a few minutes. I don't know how we all got out."

The fact of the flames spreading so rapidly from the saloon has given grounds for belief that there was an explosion of gas.

In the bedroom of the apartments over the saloon is a door which reveals a passage through the brick wall to the adjoining house—for what purpose is not apparent.

Inspector's Report.

Five-story double tenement, brick, containing 18 apartments and two stores. One apartment was vacant at the time of the fire.

The 17 families in the house at the time of the fire, with boarders, consisted of 107 persons. Of these there were 54 adults and 53 children under 14. There were at least 12 lodgers. Persons 14 years and over are reckoned as adults.

Morally the house was excellent.

The inhabitants were hard-working people.

The character of the saloon was not bad, though the house-keeper charges that gambling was indulged in late at night.

FIRE ESCAPES.

The house was fitted with fire escapes both front and rear. Those on the front extended so as to take in one window of each tenement and were provided with a fixed ladder that led from the top story to the first story, whence a movable ladder could be lowered to the sidewalk. The uppermost fire escape balcony did not connect with the roof. In the rear were two sets of fire escapes. One of these was built outside of one window for the north rear tenements and led to the back yard by means of a movable iron ladder drawn up when not in use. This ladder was in its usual position at the time of the fire and was not used, though the lower fire escape was crowded with men, women and children who reached the back yard by jumping into feather-beds thrown out by some of the tenants. This series of escapes did not connect with the roof. The other fire escape was without ladders, but communicated with the next house.

The fire raged chiefly in the south portion of the building so the north tenants were not cut off by the flames.

The fire broke out on the ground floor, and if the tenants in the south apartments had passed by the fire escapes to the ground in order to escape they would have had to pass directly through the flames, which blazed through lower windows. These escapes extended to the adjoining house and were not provided with connecting ladders. The floor of each fire escape balcony of this series was made of wooden slats. These slats were burned away on the second and third stories, leaving the escapes useless. In the front the fire escapes were free from obstructions. In the day-time the bedding was generally aired on them. On the north rear fire escapes a few articles, such as cast-off mattresses, small cooking utensils and one or two small boxes were stored. The double escape was badly obstructed. In two cases, notably on the third floor, fleeing tenants had to climb over wash-tubs in order to reach the adjoining building. Escape was at first prevented, too, because the neighboring tenants resented the intrusion, not understanding the seriousness of the occasion.

FURNITURE.

At the time of the investigation the furniture in most of the tenements had been removed. Many of the tenants were desperately poor and had little furniture outside of the pawnshop. The few pieces on hand were crowded into the front or living room. Here is the inventory of one tenement, second floor, front south: Bureau, sewing machine (tailor's) four feet long, dining-table, square (four feet), lounge, cot-bed, four chairs, two mattresses, two pillows.

In the kitchen a cook stove, table, oil stove, two chairs, one box.

In the bedroom one bed, three-fourths size, with two mattresses.

Another inventory is as follows:

Second floor, front, north.—Pier glass, reaching to ceiling; bureau, dining table (four feet square), two lounges, one cradle, one bed, three-fourths size; 2 mattresses, wire spring (cot), eight chairs (one baby chair), lace curtains.

In the kitchen a cook stove, two tables, 4 by 3 and 4 by 2, oil stove, three chairs.

In the bedroom one bed, three-fourths size, one small trunk, portable bathtub (tin), wash boiler, two washboards and clothing on walls and in closets.

RENTS.

The rents were as follows per month:

Saloon	\$35
Milk store	27
First floor, two at \$12, and two at \$11	46
Second floor, two \$11.50, and two at \$10.50	44
Third floor, two at \$10.50, and two at \$10.....	41
Fourth floor, two at \$9.50, and two at \$9	37

Total per month	\$230
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Total per year	\$2,760
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One or two of the tenants were in arrears one month.

PROGRESS OF FIRE.

The fire broke out in the saloon. Tenants are unanimous in saying they were awakened by an explosion. The fire spread to the rest of the house by means of a door in the front hall and by a small window from the room just back of the saloon. This window opens into the middle of the hall leading from the street. It is directly under the stairs leading to the second floor. An unused dumbwaiter is nearly opposite this window. The dumbwaiter was roofed in at the top and in it the tenants stored wash-tubs and other articles used but occasionally. This shaft was thoroughly burned, especially on the three upper floors, and doubtless helped to conduct the fire to the upper stories. Next to the saloon and the living and sleeping rooms back of it, the apartments on the top floor suffered most. The stairs leading to the roof were burned entirely away, and that part of the roof directly over the stairs, called the "bulkhead," fell in. The ceiling directly under the roof in three apartments was badly burned. With the exception of the ground and top floors the apartments in the north of the building were damaged more by water than by fire, though the latter ate its way into the inner dark rooms adjoining the stairs and halls. These rooms were ventilated by small windows opening into the halls.

Only one person was seriously injured by the fire, and that person was the little girl, named Lizzie Jaeger, who lived with the family of the name of Rutz, in the south rear apartment of the third story. Conflicting statements are made concerning the reason of the failure to rescue her; but the generally accepted theory is that Peter Rutz, the head of the family, somewhat naturally devoted his attention to the saving of his wife and his

own children, and because of the delay caused by climbing over obstructions on the fire escape, and overcoming the senseless resistance offered by the tenants of the next building, was unable to start to return after Lizzie until the fire had gained such headway that the way was closed to him by the flames. The little girl was burned to death in the bed at the rear of the room whose windows opened on the fire escape, and was doubtless stupified by smoke before the flames reached her. Indeed, it is doubtful if she did not drift from natural sleep into the unconsciousness caused by the smoke, thus escaping knowledge of pain or suffering completely. The attitude in which her body was found in the bed indicates that she made no attempt whatever to escape.

FIRE AT No. 38 GOERCK STREET.

Architect's Report.

The scene of the fire at 38 Goerck street, where Rachel Fessen lost her life, is a five-story brick building of comparatively recent construction. It is 25 feet wide and 60 feet deep. The first floor is occupied by a butcher's shop and grocery store. On the floors above the first story are apartments for four families on each floor. The front apartments contain three rooms, while those in the rear have two. The front and rear apartments are connected by a door. The living rooms in each suite receive direct light through windows in the outside walls. The kitchen in the front apartment receives borrowed light from a window 3 feet 4 inches by 3 feet 10 inches in the living-room partition, and direct light from a 1 foot 8 inches by 5 foot casement window opening into the light shaft near the middle of the building. The small bedroom of the front apartment receives direct light from the light shaft through a 2 feet 6 inches by 3 feet 6 inch window, and additional borrowed light from the staircase hall through a window of the same dimensions. These hall windows are placed as far up from the floor as possible and covered with a steel-wire netting to keep out sneak thieves. The kitchens of the rear apartments are lighted by a 1 foot 8 inches by 5 feet casement window in the light shaft, and borrowed light from the staircase hall through a 2 feet 6 inches by 3 feet 6-inches window. There is no dumb-waiter or shaft in the building. The plumbing in the building consists of a sink supplied with cold water only, and one water-closet on each floor, for the use of the entire four families. These are accessible from the halls.

The materials used in the construction of this building are of good quality and the work is substantially executed.

The floor beams are 3 feet by 10 feet, placed, about 15 inches on centres, and are of safe dimensions. The entire work is superior in many respects to that in many buildings of this class.

There is a fire escape in the rear 3 feet by 12 feet 6 inches, and one in front 2 feet 6 inches by 10 feet 5 inches. Each is accessible from the different apartments. All are properly equipped with ladders.

The stairs are substantially constructed and are well supported on timber carriages. A stairway from the hall in the top story leads to the roof, and is lighted by a window in the window in the bulkhead.

The stair-case hall in the first story is wainscoted four feet high. In the other stories a chair rail protects the plaster walls. The basement is used for coal-bins and lockers. The yard in the rear of the building is 14 feet by 25 feet.

The fire originated in the rear apartments of the third story occupied by Jacob Klein, and was caused by the upsetting of an oil-stove by his wife, who was cooking with one hand while tending a child with the other. It is said that the woman in her fright grabbed the blazing oil-stove and threw it into the hallway, where the strong draught from below fanned the flames and soon drove them through the entire upper part of the building.

The tenants in the first three stories escaped by the stairways to the street. In one of the upper apartments a birthday party was in progress. The guests, with the other tenants of the upper floors rushed to the roof for refuge, when they found that escape by the stairways to the street was cut off for all those above the floor on which the fire started. It is said that they could not have passed to the ground by means of the fire escapes in the rear because of the flames, but it is certain that if they had made their way to the front apartments they could have climbed out on the front fire escapes and have descended to the ground in safety. At no time did the fire protrude from the windows in front. Even after it had been extinguished there were no smoke marks on the front walls.

Panic stricken, however, they went to the roof. The building is considerably taller than those on either side so they were not able to escape to adjoining buildings. A painter's scaffold hung in front of the building, and many of the refugees from the flames succeeded in lowering themselves to it. It hung about seven feet below the overhanging cornice. From this scaffold they were with difficulty lowered to the street by the firemen. The girl who lost her life tried to jump from the roof to the scaffold, but missed her aim, and fell to the sidewalk below.

TENEMENT HOUSE AT 38 GOERCK STREET.

Inspector's Report.

Five-story brick, containing 16 tenements, with two stores and living apartments on ground floor.

Total population at time of fire, 55. Adults, 24; children, 16 and under, 31. No boarders in the house.

Vacant tenements, six.

One family occupied store and one tenement.

Only two of the front tenements were occupied.

POPULATION IN DETAIL.

South store (grocery), Jacob Newman and wife, 8 children; the oldest, a girl of 16; next, a boy of 14, and the youngest, boy, 8 months.

North story (butcher), Jacob Hulzer, Philip Rand and wife, child, a girl of nine. Hulzer has recently bought the store of Rand. Rand is to move this week. Hulzer's family not yet arrived.

Second floor, front south, Jacob Newman, as above. North vacant.

Second floor, rear, south, B. Baldinger and wife, and five children; oldest girl, 11; youngest boy, eight months. Rear, north, Isaac Green and wife, and one child, a boy of one year.

Third floor, front, south, empty; north front empty. Rear, south, Louis Klein and wife, and four children; the oldest, a girl of nine, and youngest, a boy of two; also, boys of six and four. Rear, north, Kramer and wife, and two children, boy of three and boy one year old.

Fourth floor, front, south, empty; front, north, empty. Rear, south, Max Spitz and wife, and one child, a boy, one year old. Rear, north, Isaac Haberman and wife, and three children; the oldest a girl of 11; the youngest, two years old.

Fifth floor, front, south, vacant. Front, north, Isaac Polinski and wife, and one child a boy of three years. Rear, south, Joseph Beckman and wife, and one child, a girl, 14 months. Rear, north, Adolph Kitzler, wife and five children; the oldest, a girl of 13; youngest, a boy of one year.

RENTS AS FOLLOWS:

Store, south	\$21 00
Store, north	21 00
Second floor, front, two tenants, at \$11.....	22 00
Second floor, rear, two tenants, at \$8.....	16 00

Third floor, front, two tenants, at \$10.....	\$20 00
Third floor, rear, two tenants, at \$7.50.....	15 00
Fourth floor, front, two tenants, at \$10.....	20 00
Fourth floor, rear, two tenants, at \$7.....	14 00
Fifth floor, front, two tenants, at \$9.50.....	19 00
Fifth floor, rear, two tenants, at \$6.50.....	13 00

Monthly rental	\$181 00
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Yearly rental	\$2,172 00
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The population of the house was made up chiefly of Polish and Russian Jews. The majority of the men were tailors; one is employed in a Brooklyn sugar refinery, one in a briar pipe manufactory.

Three of the tenants carried insurance on their furniture; one of these was Louis Klein, in whose apartment the fire started.

The rear tenements on the three upper floors were practically burned out. The front tenements were damaged chiefly by water. The north front tenement on the top floor was damaged but little.

The woodwork of the hall and rear rooms is badly charred. The stairs leading to the top floor are partly burned away. Those leading to the roof are entirely gone. The bulkhead did not fall in, though it is badly burned.

FIRE ESCAPES.

Fire escapes are at both the front and rear. Those in front take in two windows, one of each tenement, and lead to the ground by ladders. They do not connect with roof.

The fire escapes in the rear take in all four windows and also lead to the ground but do not connect with the roof. If the families above the floor where the fire started had attempted to escape by means of the rear fire escape it may be questioned if they could have done so without being burned. Caught on the top rear escape with the flames below them, their predicament would have been lamentable. In a panic everybody rushed to the roof, ignoring the fire escapes at the front, and were lowered by means of a painter's scaffold which happened to be on the front of the building.

SENDING IN THE ALARM.

A delay of from five to 10 minutes occurred before an alarm was sent in. As near as can be learned the alarm was rung in by somebody not living in the house. A card tacked to the front hall or street door on the inside told where the nearest alarm box was located, and how to ring it. But none of the tenants, not even the housekeeper or any of his family, knew even after the fire where the nearest or, in fact, where any fire alarm box was situated. The day being warm the front hall door was open, the card consequently being hidden from sight.

RAPIDITY OF THE FIRE.

During the short time in which the fire raged it gained terrific headway, as may be seen in the charred, and in some cases, wholly burned interior.

The windows in Mrs. Klein's apartment where the fire started from an overturned oil stove were open wide from the top. When she rushed out with her child she left the door of her tenement wide open. The tenants of that floor instead of following Mrs. Klein to the street by means of the stairs made for the roof and undoubtedly left the door leading to the roof open, also the doors of their own deserted apartments. This latter fact is evident because the vacant tenements in front, the doors of which were closed and in most cases locked, were scarcely burned at all.

Though the fire reached the airshaft on the south it made little or no headway in that direction. Its course followed the stairs leading to the roof.

LOCATION OF WATER-SINKS AND CLOSETS.

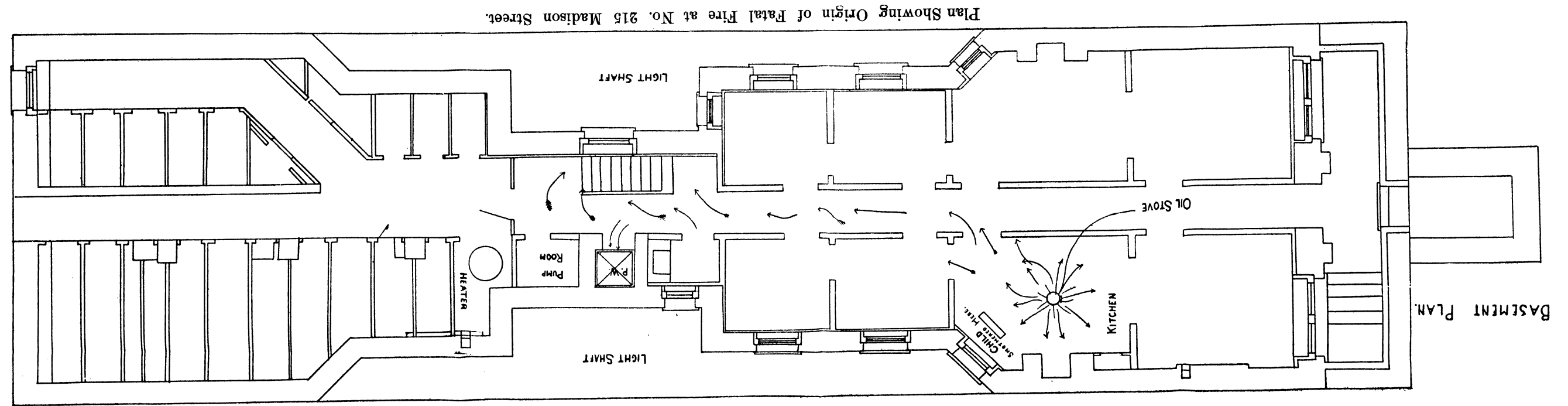
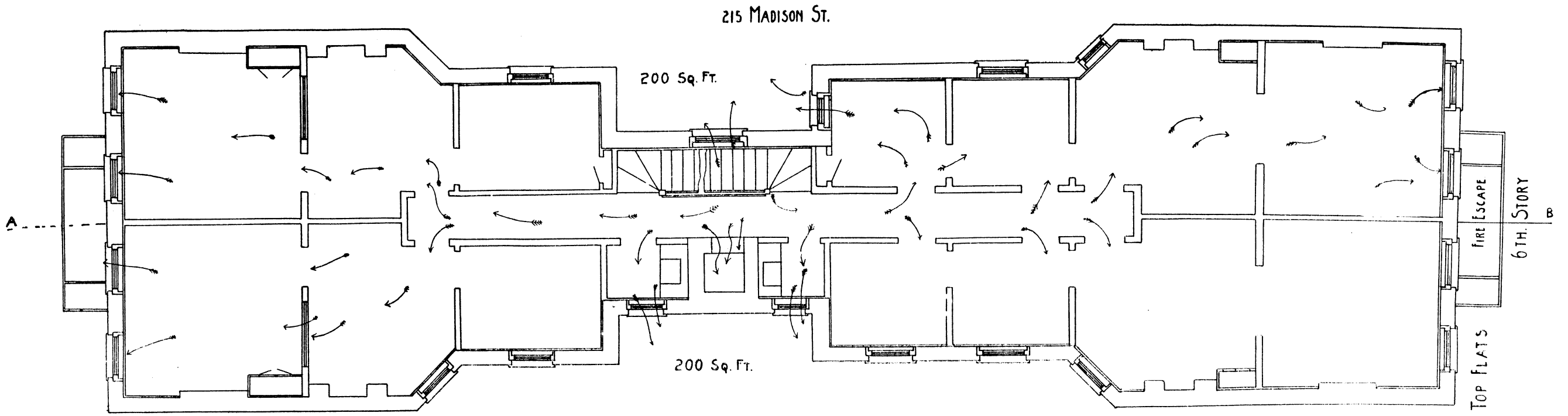
Water was drawn from a sink in the hall on each floor. This sink is about midway in the hall and one sink was used by four families. There are no sinks in any of the tenements except the two on the ground floor in the rear of the stores.

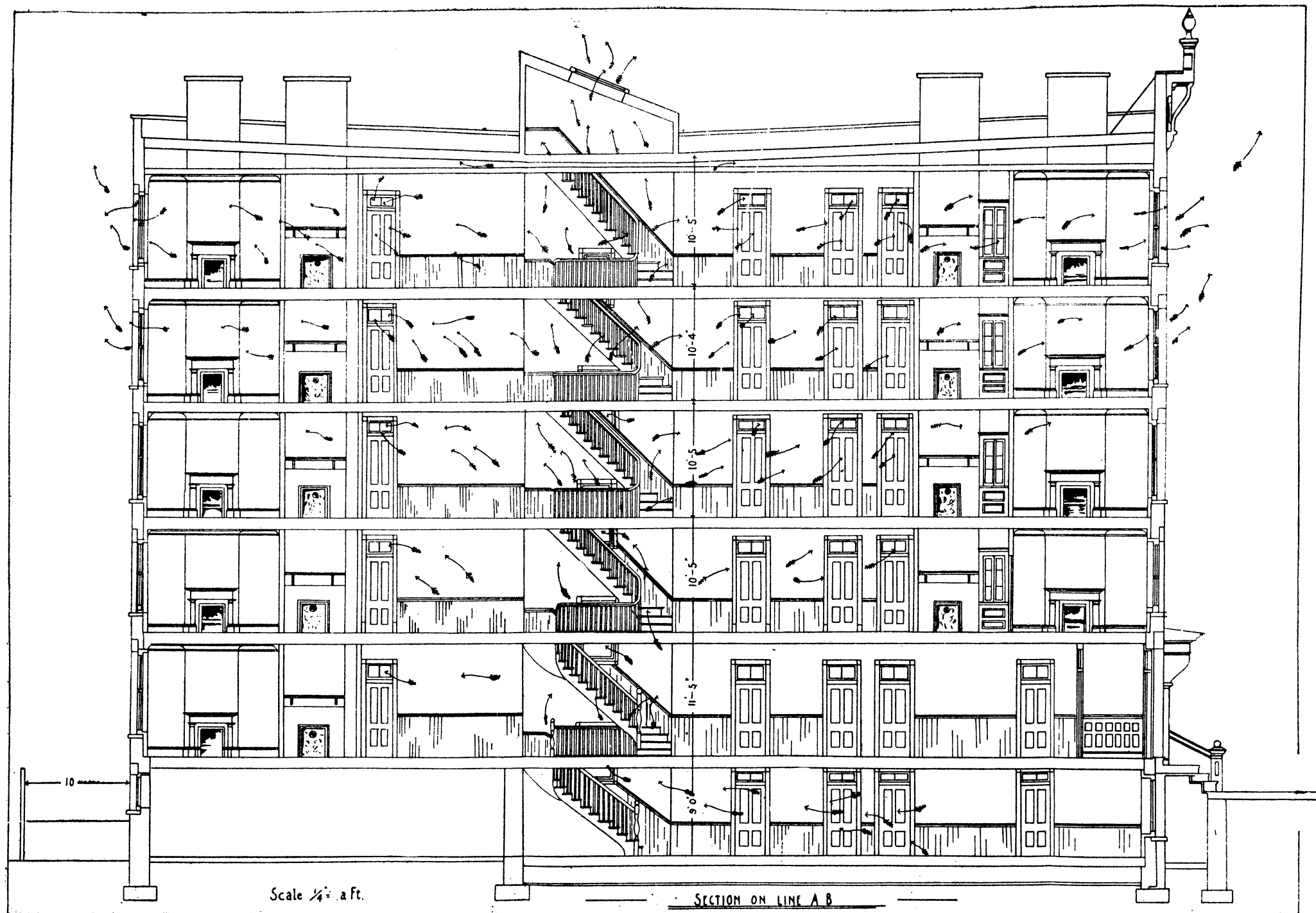
The water-closets are located at the rear end of the hall on each floor except the first. The families in the two ground tenements depend on one closet in the yard.

Tenants took turns in keeping halls, stairs and closets clean, in periods of a week at a time.

THE ROOF AS A PLACE OF REFUGE.

Tenants were accustomed to dry their clothes on the roof, and in hot weather the inhabitants of the two upper floors were accustomed to spend the greater part of the night on the roof, some going so far in the hottest nights as to sleep there.





Cross Section Showing the Course of a Fire Starting in the Basement of the "Double Decker" at No. 215 Madison Street; Illustrating the Danger of Continuous Stairway Wells, and the Necessity for Plentiful Escapes from the Upper Stories.

It was somewhat natural, therefore, that the panic-stricken population of the upper floors should flee in that familiar direction—the opposite one from which the smoke and heat was coming—rather than trust themselves to the uncertain and strange fire escapes. Then, too, the smoke was rolling up through the rear fire escapes, and the danger below seemed great.

HOW THE FIRE STARTED.

Mrs. Klein describes the origin of the fire as follows:

"We were all down on the sidewalk during the afternoon. I went upstairs with my 2-year-old boy to get supper. I set him on the cooking table and lighted the oil stove. Just then the boy leaned over. I thought he was going to fall. As I jumped to catch him, a knife in my hand knocked over the oil stove, which was on top of the cooking stove.

"I saw the oil running out, and it took fire at once. I grabbed my boy by the arm and rushed out into the halls with him, calling 'fire' at the same time."

Mrs. Klein says she left the boy at the head of the stairs and went back to put out the fire. When she reached the door the sofa near the door was in flames, and the whole floor seemed to be on fire. Scattered around the room were five wood chairs, besides the rocker in the southeast corner.

In the bedroom was a three-quarter bed, piled high with mattresses, which were spread on the floor in the living room or kitchen at night. The baby's crib was also in this room, together with one trunk and most of the best clothes of the household.

MADISON STREET TENEMENT-HOUSE FIRE.

This building is what is called a modern six-story "double-decker," on the "dumb-bell plan," built on an ordinary city lot, 25 x 100.

In the basement are two apartments in front, of four rooms each, with a long corridor three feet wide and 43 feet long leading to the staircase hall in the middle, where are located the dumb-waiter and water-closets, with coal-bins, pump-closet and heater-room for furnace, which heats the halls.

In the upper stories there are two apartments of four rooms each in front, and two apartments of three rooms each in the rear, with a stairway leading to the roof, and a bulkhead over the upper flight, in the usual way.

The fire originated in the kitchen of the left, front basement apartment, and was caused by upsetting an oil stove, which,

perhaps, may have exploded. The fire went out through the kitchen door and headlight into the corridor, and found its way into the staircase hall and dumb-waiter shaft, and immediately grew into a tornado of flames and spread through the upper apartments and hall, burning off the bulkhead and making wreck of all inflammable materials in its way. The course of the flames is indicated by the arrows on the plans and section. The child was smothered in the kitchen where the fire started.

NOTES.

The doors to nearly all the apartments in the upper stories in the vicinity of the halls were charred and blackened, and so intense was the heat from the flames which poured out the hall windows into the easterly light shaft, that the window sills and lintels were cracked in some cases.

The rapidity with which fire spreads in this "new style of apartments," with its numerous light shafts, dumb-waiter shafts and halls, leads one to pause and consider whether we are really improving the old order of things or not. It is true we secure light and better ventilation, but at what risks!

The writer has seen, within two days, two examples of the old-style tenement, without light shafts or dumb-waiter, where fire originated in the basement and burned out the entire contents of each, without damaging the upper floors.

SUPPLEMENT No. 10.

Fireproof Construction.

To the Members of the Tenement-House Commission:

Gentlemen.—I beg leave to hand to you, herewith, a number of plans and estimates made by the well-known architect, Mr. David W. King, under the supervision of the writer, showing the cost of fire-proof construction of tenement-houses.

The mass of testimony adduced at the public hearings of the tenement-house committee has demonstrated very forcibly the danger from fire and the large fatality attending fires in tenement-houses, and points in the most emphatic manner to the great advantage to be gained from fireproof construction in such buildings. To this end we have had careful estimates prepared by Mr. David W. King, embracing the entire question of fireproof construction and its possibilities, a summary of which will be found in the accompanying papers. These figures have been prepared from specifications carefully drawn, and from bids made under the contract adopted by the American Institute of Architects and the Western Institute of Architects, which is the contract usually used for such purposes. The result is very gratifying and encouraging, showing clearly that it is as cheap, if not cheaper, in the end to construct a fire-proof building, than one of the ordinary structures with wooden interiors of the present type.

Five plans were selected from those on file at the department of buildings, as representing five average types of tenements located in various sections of the city, two on the east side and three on the west side, and the value of the land duly appraised by two well-known appraisers, one of whom was Mr. Charles Griffin.

We have adopted the ordinary form of fireproofing with steel beams, filled in with terra-cotta, flat arches laid in cement. We have had these plans inspected by an engineer connected with the department of buildings in order to be certain that they comply with all requirements of said department, and he pronounces them thoroughly satisfactory. The cost of fireproofing materials has been reduced in the last 10 years 35 per cent, while

steel beams have superseded iron at half its former cost, thus bringing the cost of such construction to a very low figure, and it seems improbable that these materials will increase in cost to any greater degree than will lumber or materials used in the average construction now in vogue in tenement-houses. The cost of erecting a fireproof building, taking the five plans used will average but little more than 10 per cent. over that of a building with wooden beams, lath and plaster, ceilings and walls, deducting this necessary increase for fireproof construction for the first floor as now required by law. In considering this increase of 10 per cent. of the cost of a tenement building, it should be remembered that the cost of the lot is in many cases as much as that of the building, thus reducing the increased percentage of cost on the entire investment to only five per cent.

Taking the five tenements which we have selected as representatives of their class, we find that the advantage of such a structure to the investor is so apparent that it would appear to more than counterbalance the slightly increased cost of construction; for with the fireproof building, we have a permanent and durable house which will last for years with a minimum of repairs. It is safe to assume that such a building would more than return the interest on the increased cost, in the saving of insurance, repairs and improvements. The advantages are many to the tenants, such as safety from fire, freedom from vermin and insects, and the slight opportunities for the spread of contagion and the accumulation of filth, which is so easily harbored in the cracks or absorbed in the woodwork of an ordinary building. The solid partitions between the apartments would add materially to their privacy and prevent the transmission of sound from one apartment to another. Such advantages would no doubt be likely to have the effect of keeping such apartments more constantly filled with desirable tenants, and at the same rental the gross income from the house would be thus increased (by a decrease of defaults and vacancies) to the advantage of the landlord on account of its attractiveness to tenants.

We have had a number of bids for special fireproof constructions, some of which have not been more than 3 per cent. in excess of the cost of the average wooden building, and we have had an offer from a very reliable firm of builders to construct a fireproof tenement using our plans and bidding on standard fireproof construction for 8 per cent. more than the cost of the wooden building. While the committee has not deemed it wise to adopt or recommend any plan for special fireproof construction without further investigation, it seems highly probable that it will yet be possible to erect a steel frame building at about

the same cost as a wooden one. There is no reason why the tenement of the future should not be thus constructed to the mutual advantage of the owner, occupant and the public welfare.

All the bids, forms of contracts, specifications, bills of material, etc., from which these estimates were made, covering several hundred pages, and much too voluminous for publication in full, are on file with the committee.

Since preparing this report, the writer has submitted its substance to one of the largest tenement-house owners in New York, who thoroughly agrees with all said herein, and says that he would always pay 10 per cent. more for a fireproof tenement-house, or would willingly invest this additional sum to secure this class of building. He spoke from his own experience of the fact that dry rot frequently exists in beams, necessitating very large expenditures for repairs and new floors, sometimes before the building has arrived at any great age.

Several other real estate men who are familiar with, or handle large amounts of tenement-house property, were also consulted, and all agreed that these suggestions were of the most valuable character, and that if the cost would only be so far increased as above stated, the owner would in every case find it to his actual financial advantage to put up such a building.

While these estimates may be considered rather low by persons unfamiliar with tenement property, still we believe that under actual competition for buildings of this class, even better prices may be obtained. It is fair to presume that if fireproof tenements come into vogue, after a little more experience in handling materials and in making plans for such structures, the cost of the buildings will certainly come within the figures mentioned.

The undersigned believes that fireproof construction will usher in a class of tenements that will do more to reduce the death-rate than any recommendation possible, or any regulation in the power of the health department.

Respectfully,

W. D'H. WASHINGTON.

REPORT OF THE COMPARATIVE COST OF ORDINARY AND FIREPROOF CONSTRUCTION IN TENEMENTS.

*Illustrated by Five Examples of Houses Erected in Different
Parts of New York city.*

Complete specifications have been written and careful calculations made of the most economical distribution of the iron beams required to support the floors and partitions in each building — and detailed estimates of different branches of the work have been prepared and appraisements of the ground in each case have been obtained from qualified men in that particular respect.

The cost of each building is estimated as a non-fireproof structure as a basis, and the increase for partial fireproofing and a complete fireproof building, have been obtained. The system of fireproofing which has been estimated upon, is the one most commonly used in good work, viz.: steel beams, filled in with terra-cotta; flat arches, leveled with concrete, and three-inch porous terra-cotta partition blocks laid in cement mortar. The finished floors are nailed to wood strips, bedded in the leveling cement.

The stairs have rolled-steel carriages, cast-iron risers and slate treads, neat wrought-iron ballusters and rails and wooden hand-rails.

PRICES OF MATERIALS.

The density of steel is about 2 per cent. heavier than iron, and is 25 per cent. stronger.

The price of iron set in 1884 was four cents per pound.

The price at the present time is two cents per pound set.

The price of labor does not vary much.

General building materials are from 15 to 20 per cent. less than in 1884.

Fireproofing materials are 35 per cent. less than in 1884, and 25 per cent. less than in 1889.

In reference to the method of steel skeleton construction, it is well worth the attention of leading architects and engineers. From the fact that it has been used successfully in large office buildings, is sufficient proof that it can be used on a smaller scale quite as safely, and with economy. The advantages to be gained by the increased width of rooms in narrow city lots and the possibility of constructing fireproof tenements within a reasonable limit of increase of expense, above the old method,

should be encouraged. It needs no arguments to show that tenements should be vermin-proof as far as possible. This can only be secured by fireproof construction.

I have made no allowance for reduction in the rates of insurance, which, of course, would bring the estimates a fraction lower.

By way of suggestions for improvements in the plans of tenements, I should favor in the case of "double-deckers" or tenements of that class—that they should not be composed of more than three rooms; and that the front and rear parts of such buildings should be separated as much as possible so as to secure a very large open light shaft or court, in which fireproof stairs could be placed, connected by fireproof open balconies, as has already been suggested before the sessions of the committee.

The water-closets should be made fire and vermin-proof, and placed, if possible, outside the living rooms.

There should be no plumbing fixtures in the living apartments, except a sink supplied with cold water, with traps and pipes exposed to view. The inclosed or boxed-in plumbing work in tenements, is an abomination; and only a receptacle for filth.

One case is known to the writer, where a family of Polish Jews had dressed their poultry in their living rooms and threw the entrails into the little closet which inclosed the sink, where it lay festering in mid-summer. The strangest part of this case is, that the family, without exception, living in such a fetid atmosphere seemed perfectly healthy.

Bathing facilities should be provided for each tenement-house of six families or more, in the basement of the building, with separate compartments for men and women. There should be a plunge tank for the children, and other facilities for adults.

A cast-iron bath-tub or tank painted would undoubtedly be the most appropriate, as it is cheap, and would stand rough usage.

I believe that the question of instruction is one important factor which should not be hidden from sight. These people should be taught how to live and keep clean.

DAVID W. KING,

COMPARATIVE COST OF TENEMENTS.

Plan No. 472.

This building is the middle house of a group of three tenements located at Nos. 246-248 and 250 West Thirty-eighth street, New York, on a plot of ground 75 feet by 98 feet 9 inches. The dimensions of the middle lot, No. 248, being 25 feet by 98 feet 9 inches. This building is five stories in height above the basement, and comprises three apartments of four rooms each on every floor, giving accommodations for 15 families, and janitor's apartments in the basement.

The basement is 8 feet; the first, second, third, fourth and fifth stories are 10 feet high in the clear. The front of the building to the top of the second story window sill course is faced with limestone rockfaced.

Above the second-story window-sill course the building is faced with pressed brick trimmed with fine cut stone. Cornice of galvanized iron. The rear and side walls are of hard brick. Rear windows have rubbed blue stone sills and lintels. Wall above roof coped with terra-cotta.

The first floor and basement stairs are fireproof. The remaining floors and partitions throughout are of wood construction — nonfireproof.

The inside walls and ceilings are hardfinished on two coats of mortar and wood lath.

Inside finish of the usual description in this class of buildings.

The cost of the nonfireproof building, according to estimates received, is \$17,812.07.

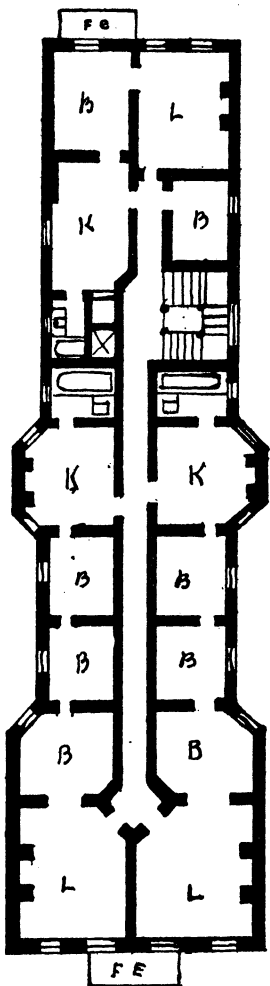
For a partial fireproof building, with first floor, and stairs to basement, \$18,361.69 — making an increase of \$549.62, or .03 + per cent.

For an entirely fireproof building, the cost would be \$20,342.19, or a total increase of \$2,530.12, which is .142 + per cent. in excess of cost of a nonfireproof building of this description.

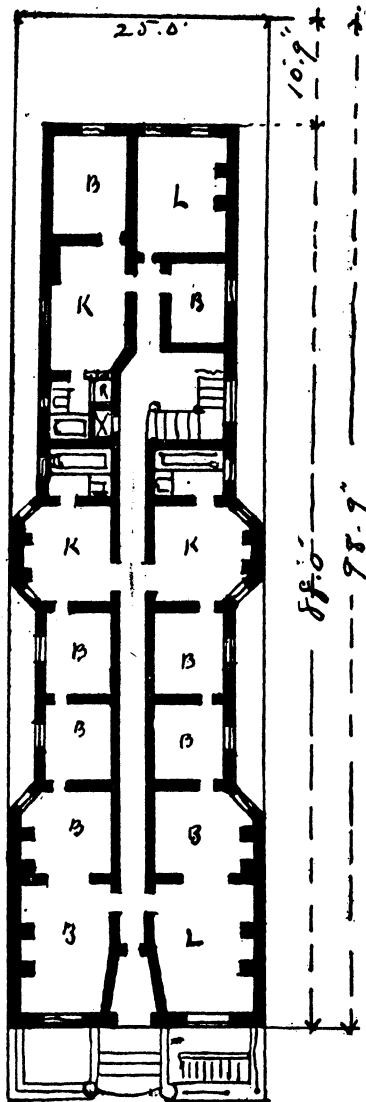
The building occupies 1,963 square feet of ground, and for a nonfireproof building, the cost would be \$9.07 + per square foot.

For partial fireproof building the cost per square foot is \$9.35+.

And for an entirely fireproof building the cost would be \$10.41 per square foot.



Upper Stories



First Story

Plan No. 472

III

TYPE OF TENEMENT-HOUSE WITH THREE FAMILIES ON EACH FLOOR.



RENTS RECEIVED.

	Per year.
Basement, one apartment, for janitor.....	.....
First story, two apartments, front, \$25 a month.....	\$600
First story, one apartment, rear, \$23 a month.....	276
Second story, one apartment, rear, \$25 a month.....	300
Second story, two apartments, front, \$25 a month....	600
Third story, one apartment, rear, \$24 a month.....	288
Third story, two apartments, front, \$24 a month.....	576
Fourth story, two apartments, front, \$23 a month....	552
Fourth story, one apartment, rear, \$23 a month.....	276
Fifth story, one apartment, rear, \$22 a month.....	264
Fifth story, two apartments, front, \$22 a month.....	528
Total	\$4,260

DISBURSEMENTS.

Repairs	\$161
Water tax	30
Gas for lighting halls, per year	21
Heating halls, per year	40
Taxes (about)	200
Total	\$452

Vacancies at the present time, two.

Defaults in payment of rents, unknown.

The valuation of the lot, according to Charles Griffin's appraisal, is \$18,333.33.

If the building is constructed nonfireproof, the total amount of the investment would be \$17,812.07 + the price of lot, \$18,333.33; total, \$36,145.40. The gross return of the investment in each case is \$4,260, which, for the nonfireproof building would be .1174 per cent.

For the partial fireproof building, we have \$17,812.07; the cost of the nonfireproof building, to which we add cost of fireproofing first floor and basement stairs, which in this case is \$549.62, which, added to the cost of nonfireproof building, gives us \$18,361.69; to this add the price of lot, \$18,333.33, gives a total of \$36,695.02; the total amount of the investment in this case, which yields a gross return of .116 + per cent, nearly.

If the building is entirely fireproof, we add the total increase to cost, \$2,530.12, to the cost of nonfireproof building, and we have a total of \$20,342.19; which, added to the cost of the ground, gives \$38,674.52, a gross return of .11 + per cent.

According to H. Hafker's estimate, this building can be erected entirely fireproof for \$19,237.03, or at a total increase of \$1,424.96.

Cutter estimates that this building can be made entirely fireproof according to his system for the sum of \$18,346.43, or at a total increase of \$1,424.96.

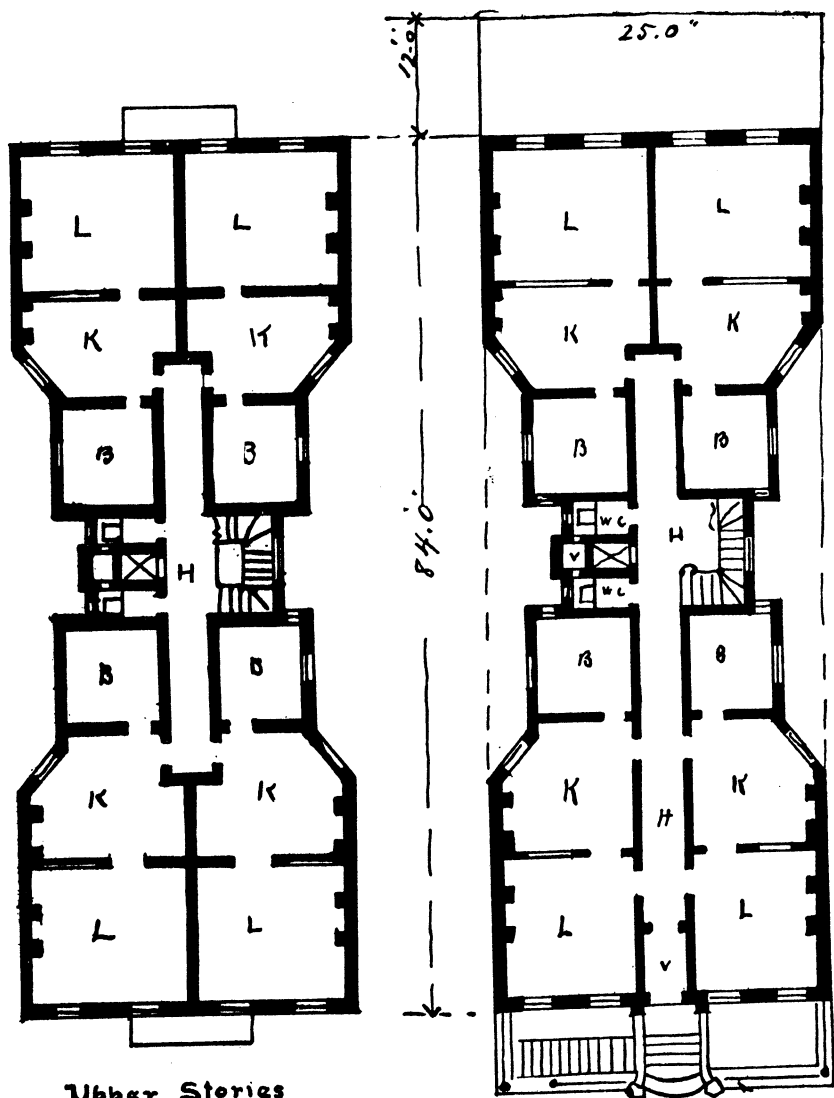
The estimates of the nonfireproof building in this case are exceedingly low, being less than the sum named in the application filed in the building department. This might easily be accounted for, as rock or other expensive foundation work may have been necessarily included.

DAVID W. KING,
Architect.

Plan No. 5.

Old style nonfireproof building:

This building is a good example of a "double-decker" of the "dumb-bell" plan, situated on a lot with a frontage of 25 feet and a depth of 96 feet, located on the north side of East Tenth street, New York, the premises being known as street number 231 East Tenth street. This building is five stories in height, with two apartments of three rooms each in the front basement, and lockers in the rear for coal and wood and general storage for the tenants. Above the basement, there are four apartments of three rooms each; making in all accommodations for 22 families. These apartments comprise a living-room marked L on the sketch plan, kitchen marked K, bedroom B, etc., with staircase hall, water-closets, dumb-waiter and vent shafts midway between the suites of apartments. The stairs extend to the roof, and the upper halls are lighted by a window or skylight in the bulkhead. The height of the stories are as follows, basement eight feet, first story 10 feet 6 inches, second, third, fourth and fifth stories 9 feet 6 inches, all in the clear. The front of the building is of pressed brick, with stone and terra-cotta trimmings and a galvanized iron cornice. The foundations, rear and side walls, and backing of front walls, are of hard brick. Floors, partitions, roof timbers and sheathe covering of wood, of usual dimensions; the roof tinued. The inside ceilings and side walls of all finished apartments, halls and closets are hardfinished on two coats of brown mortar and wood lath. The plumbing fixtures consist of water-closets, laundry tubs, sinks and gas fixtures; dumb-waiter and the usual fire escapes front and rear being also included. The inside finish, mantels, etc., are cheap and common like all buildings of its class. The front area and stairs to basement, sidewalk and coal cover and chute may be briefly said to complete the list of items required to finish the building in the customary manner for such work.



NO. 5.—TYPE OF TENEMENT-HOUSE WITH FOUR FAMILIES ON EACH FLOOR. POPULAR PLAN, AT 281 EAST TENTH STREET, NEW YORK.



From estimates recently made this building can be erected for \$18,421.

If the first floor and basement stairs are made of fireproof, the increase would be \$455, making a total of \$18,876, thus increasing the cost of the building .0247+ per cent.

If the building is made entirely fireproof, the increase in cost would be \$2,498.86. This amount added to \$18,421, the original cost of the nonfireproof building, would make a total of \$20,919.86, which would be an increase of .135 + per cent.

RENTS RECEIVED.

The rents received from this apartment-house are as follows:

	Per year.
Basement, one apartment for janitor .....	.....
Basement, one apartment, front, at \$12 per month....	\$144 00
First story, two apartments, front, \$16.50.....	396 00
First story, two apartments, rear, \$15.50.....	372 00
Second story, two apartments, front, \$17.....	408 00
Second story, two apartments, rear, \$16.....	384 00
Third story, two apartments, front, \$16.50.....	396 00
Third story, two apartments, rear, \$15.50.....	372 00
Fourth story, two apartments, front, \$16.50.....	396 00
Fourth story, two apartments, rear, \$15.50.....	372 00
Fifth story, two apartments, front, \$16.50.....	396 00
Fifth story, two apartments, rear, \$15.50.....	372 00
Total	<u>\$4,008 00</u>

This building appears to be very popular as it is reported that the apartments are almost always fully occupied, consequently the vacancies and defaults are little or nothing.

The disbursements are not known.

The valuation of the ground, according to the appraisalment of Charles Griffin, is \$16,000.

The amount of the investment under the first conditions would include the cost of the nonfireproof building, \$18,421, to which would be added the cost of the ground, \$16,000, making a total of \$34,421. The sum received from rentals is \$4,008, which is equivalent to .116+ per cent. gross, on the investment.

In the case of making the first floor and basement stairs fireproof, the amount of the investment would include the cost of the ground, \$16,000, to which would be added the cost of the nonfireproof building, \$18,421, and the partial fireproof increase \$455, making a total of \$34,876. Since the amount

received for rentals are the same in each case, viz., \$4,008, we have a gross return of .149+ per cent. on the investment.

For an entirely fireproof building, we would have the cost of the ground \$16,000, same as before, to which we add the cost of building, \$18,421, and the entire fireproofing increase \$2,498.86, making a total investment of \$36,919.86. The rentals received, being the same, we would have a gross return of .1085+ per cent. on the investment.

This building occupies about 1,872 square feet of ground—consequently the nonfireproof building would cost \$9.84 per square foot.

The partial fireproof building would cost \$10.08 per square foot, and an entirely fireproof building would cost \$11.12 per square foot.

H. Harker, of the firm of Harker & Hollwedell, states that they can reduce the cost of tenement fireproof construction throughout to .08 per cent. in advance of the ordinary method of construction. These men have built a large number of tenements in different parts of New York and are thoroughly familiar with this class of work.

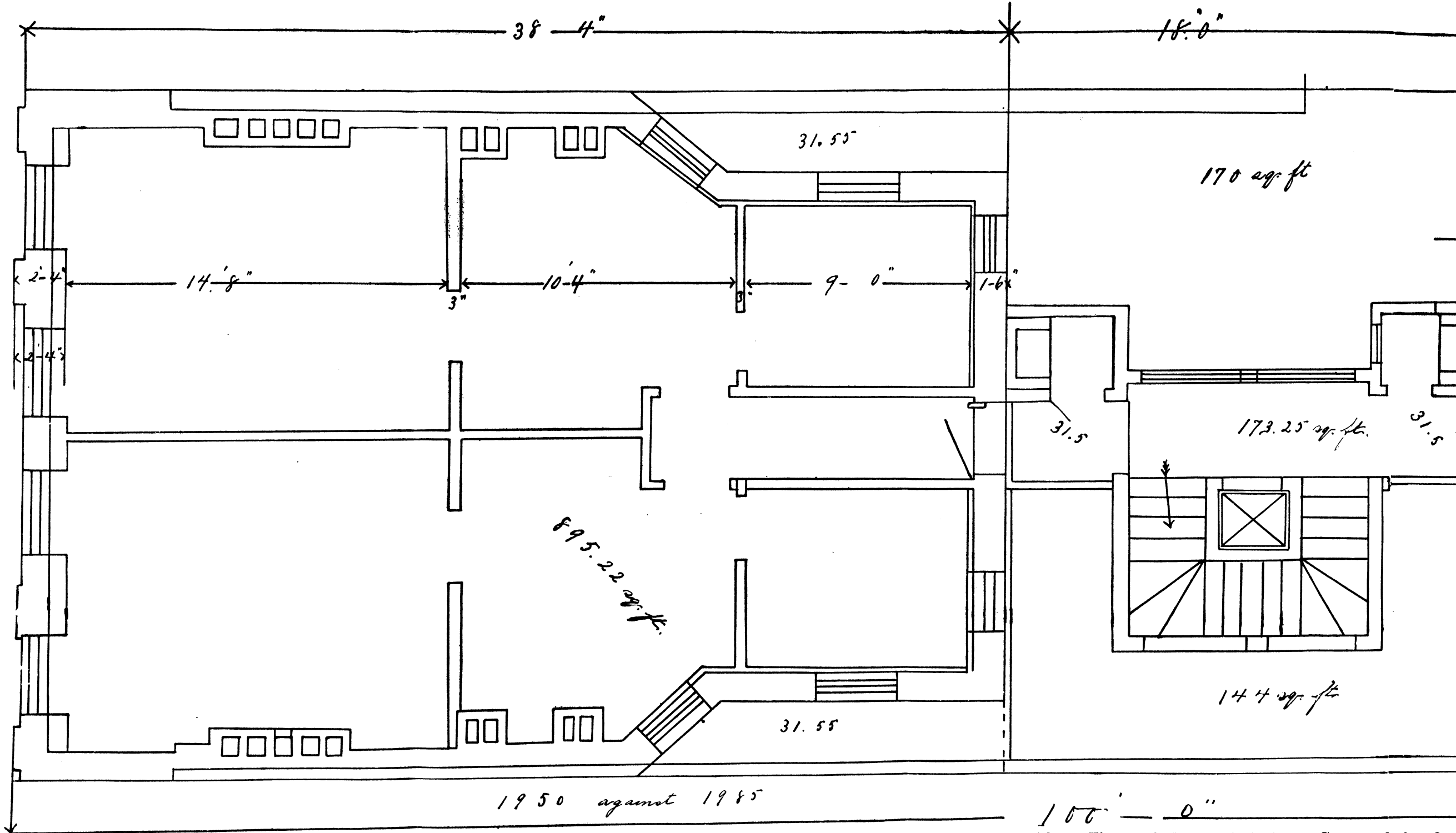
Manly N. Cutter presents a method of fireproof construction, using for the side walls a steel skeleton frame filled in with hollow pottery of about the same color of hard brick laid up in mortar in the same manner. For the floor he uses eight-inch steel beams filled in with porous terra-cotta arches leveled with concrete. Similar to the first system estimated upon. Instead of the finished wooden floor universally used in all construction of this class, he proposes to use porous terra-cotta slabs set in cement, which he estimates at one cent per square foot laid, which gives him a large margin for reducing the cost in this one item. Again, he constructs his side walls only eight inches thick, which saves in quantity of brick measurements, as well as increasing the width of the room which is an item worthy of note in the construction of narrow houses. The roof covering is also of terra-cotta, laid in asphaltic cement.

He also uses terra-cotta in the place of stone trimmings and galvanized iron cornices and agrees to finish said buildings for \$18,943 thoroughly fireproof throughout. This sum increases the cost above the ordinary wood construction exactly \$522.97, or a percentage of about .02839+ increase. Safely, we may say the increase will be from three to four per cent.

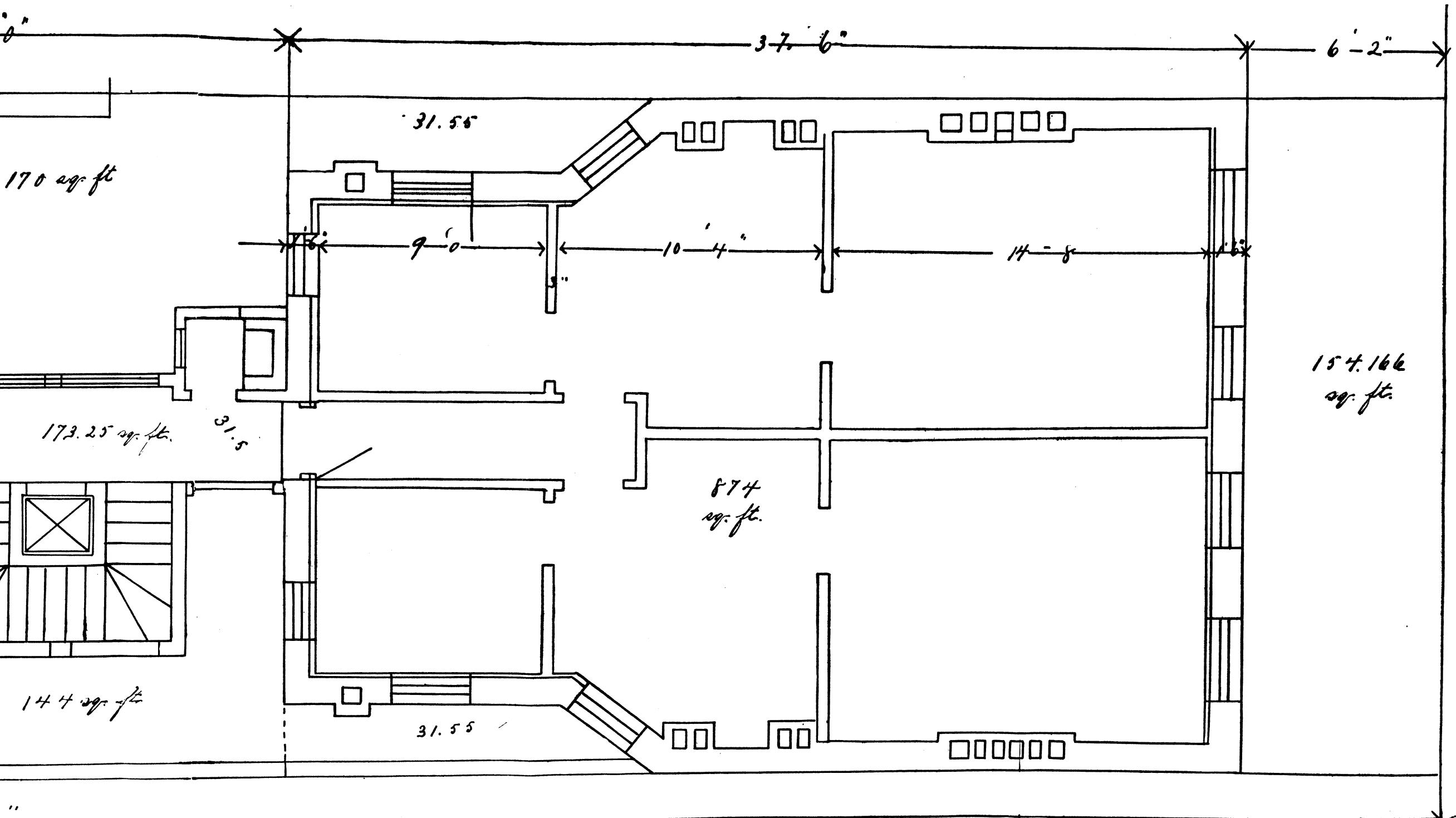
This last-named gentleman submits an itemized estimate, and claims to have the indorsement of J. B. & J. M. Cornell and others, in favor of his system of fireproof construction.

DAVID W. KING,

Architect.

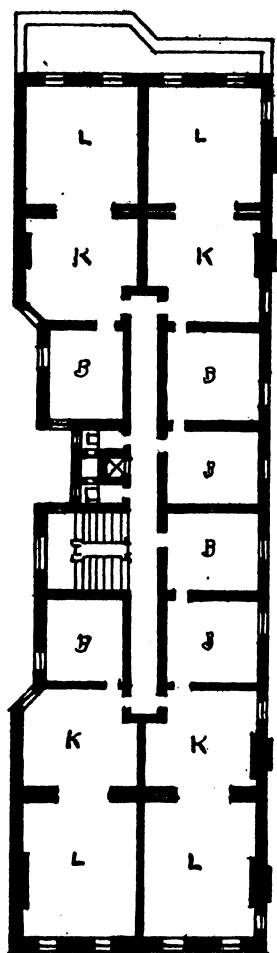
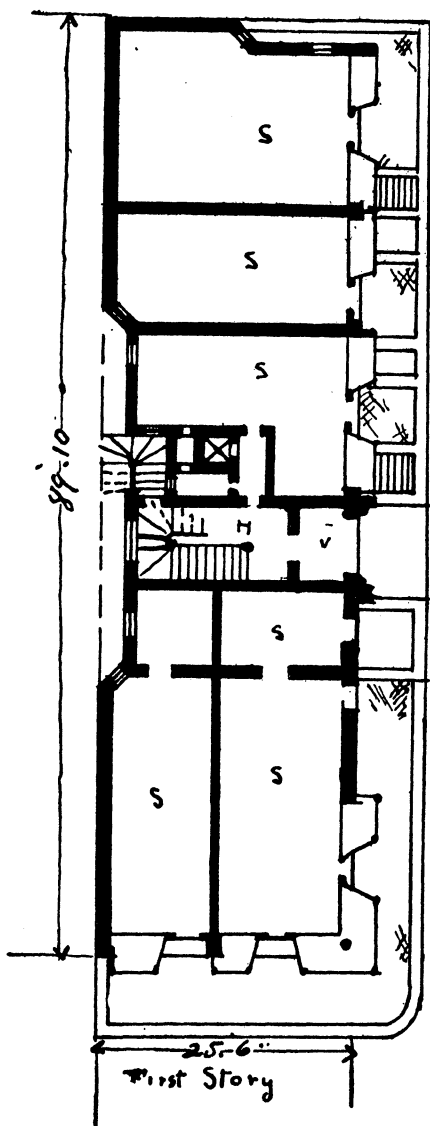


Suggestions for an Improved Plan of a Tenement House, with a Fire-proof Detached Stairway, Connected by Opening



Attached Stairway, Connected by Open Balconies to Main Wings of Building. Four Families on Each Floor.





Plan. No. 1136

TYPE OF TENEMENT-HOUSE WITH STORES BELOW AND FOUR FAMILIES ON EACH FLOOR—CORNER LOT.

Plan No. 1136.

This building is situated on a lot 25 feet by 95 feet 10 inches at No. 27 Rutgers place, on the corner of Clinton street, New York. A basement extends under the entire building, with vault lights under the sidewalk. There are two stories in the basement, and five in the first story, with apartments for 20 families in the five upper stories. The basement is 8 feet; the first, or store floor, 12 feet, and each of the upper stories, 9 feet 2 inches in height, all in the clear. The front on Rutgers place, and the side on Clinton street, are faced with pressed brick and trimmed with stone. The cornices of galvanized iron; roof, tinned. As the building now stands, the first floor and basement stairs are fireproof. This building, if erected in the ordinary way, would cost \$28,422.95.

With the first floor and basement stairs fireproof, it would cost \$29,223.10.

The increase of cost of the partial fireproof buildings being \$800.15, or about .0028 per cent. If made fireproof throughout, the increase in cost would be \$3,544.73, about .124 per cent, making the totals, \$29,223.10, for partial, and in complete fireproof buildings, \$31,967.68.

The value of the lot according to Charles Griffin, is \$26,000.

The total amount of the investment, if of nonfireproof construction, would be \$54,423, nearly.

If partial fireproof construction is used, it would be \$55,223.10.

If an entirely fireproof building is erected, the entire investment would be \$57,967.63.

The gross returns on the investment without making any deductions for expenses, would be for a nonfireproof building, .102+ per cent.

For a partial fireproof building, about ten (10) per cent.

For a complete fireproof building, .0951 + per cent.

RENTS RECEIVED.

	Per year.
Basement, two stores, per month, each \$20	\$480 00
First story, three stores, per month, each \$28.....	708 00
First story, two stores, per month, each \$24.....	576 00
Second story, two apartments, rear, each \$14.....	236 00
Second story, two apartments, front, each \$14.50....	348 00
Third story, two apartments, front, each \$18.50....	444 00
Third story, two apartments, rear, each \$18.....	432 00
Fourth story, two apartments, rear, each \$17.....	408 00
Fourth story, two apartments, front, each \$17.50...	420 00

Fifth story, two apartments front, each \$16.50.....	\$396 00
Fifth story, two apartments, rear, each \$16.....	384 00
Sixth story, two apartments, rear, each \$15.....	360 00
Sixth story, two apartments, front, each \$15.50.....	372 00
<hr/>	
Total	\$5,564 00
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According to Hafker's estimate the complete fireproof building would cost \$30,697.

The Cutter method would give a total of \$29,275.63.

The area of ground covered by the building is about 1,915 square feet; consequently a nonfireproof building of this description would cost \$14.84 per square foot.

Partial fireproof building would cost \$15.26 per square foot.

If entirely fireproof it would cost \$16.68 per square foot.

The disbursements for expenses are as follows:

Repairs	\$225 00
Gas for lighting halls	30 00
Water taxes	50 00
Taxes on property	300 00
Janitor's rent	168 00
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Total	\$773 00
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Vacancies and defaults not known.

DAVID W. KING,
Architect.

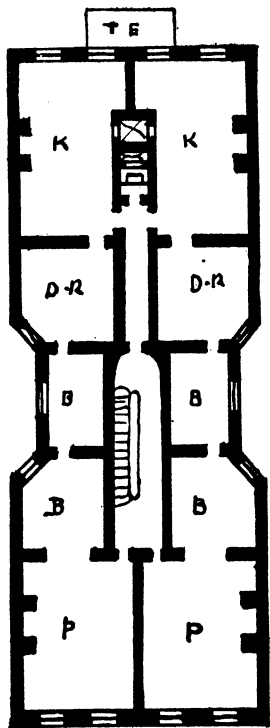
Plan No. 397.

Is an apartment-house for eight families, consisting of five rooms, without bathroom.

It is located at No. 607 East One Hundred and Fifty-second street, 100 feet east of Cortland avenue. Dimensions of lot are 25 feet by 100 feet.

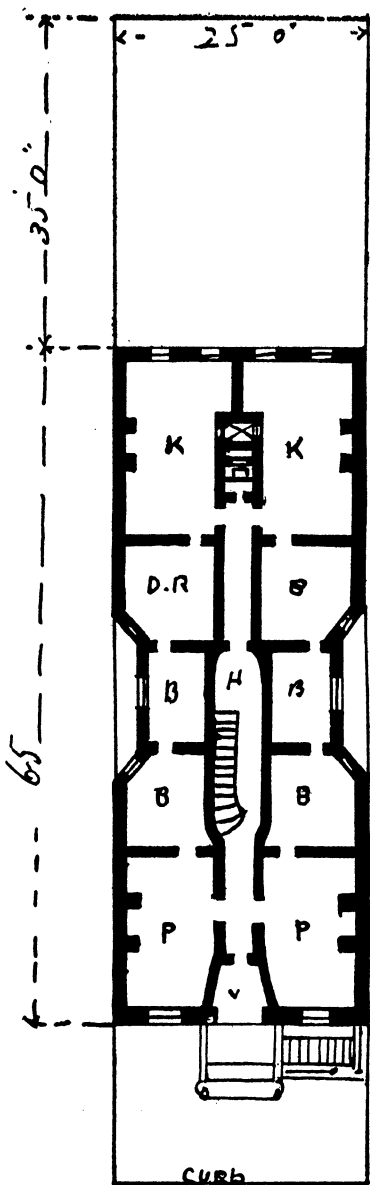
A basement extends under the entire structure, with no living apartments below the first story. The building is four stories in height above the basement, arranged for two families on each floor. The basement is 7 feet in height, the first story, 10 feet 6 inches. The second, third, fourth and fifth stories, are each 9 feet in the clear.

The front is of brick with carved and molded window caps; pediment over front entrance, steps, etc.; galvanized iron cornice; tin roof. The dumb-waiter and vent shafts are made fireproof with steel angle irons, filled in with terra-cotta blocks.



Upper Floors

Plan No. 597.



First Story

II

TYPE OF TENEMENT-HOUSE WITH TWO FAMILIES ON EACH FLOOR.



The floors and partitions above the basement are of wood, constructed in the ordinary way; floor beams, 3 inches by 10 inches; studding, 3 inches by 4 inches; placed 16 inches from centers, except roof, which is spaced 20 inches from centers; ceilings and partitions are lathed with wood lath.

Side walls and ceilings are hardfinished on two coats of brown mortar.

Inside finish similar to buildings of this class, cheap and common.

Fire escapes in the rear; bulkhead in roof fireproof.

From a statement in the application filed in the building department, March 30, 1893, the building cost \$10,000.

From actual estimates received, based on the department drawings, and specifications written for same, this building can be erected for \$14,964.22.

If the first floor and basement stairs are made fireproof, this building would cost \$15,436.22. The total increase for partial fireproofing being \$472, or an increase of .0315 + per cent above the cost of the nonfireproof building.

If entirely fireproof, the building would cost \$17,105.12 total, this being an increase of \$2,140.90 above the cost of the non-fireproof building, or about .143 + per cent.

RENTS RECEIVED.

	Per year.
First story, two apartments, at \$11.50 per month....	\$276 00
Second story, two apartments, at \$13 per month.....	312 00
Third story, two apartments, at \$12 per month.....	288 00
Fourth story, two apartments, at \$11 per month.....	264 00
Total	\$1,140 00

DISBURSEMENTS.

Janitor's fees (rent of one apartment)	\$138 00
Water taxes	25 00
Gas for lighting halls	21 00
Coal for heating halls	30 00
Repairs	100 00
Taxes (about)	180 00
Total	\$494 00

The value of the lot according to Charles Griffin is \$4,000, and the total investment for nonfireproof building would be \$14,964.22, with the cost of lot added, or a total of \$18,964.22.

With first floor and basement stairs fireproof, the total investment would be \$14,964.22 plus cost of fireproofing, which is \$472 plus the cost of the ground, viz., \$4,000, making a total of \$19,436.22.

For complete fireproof building, it would be \$14,964.22 plus \$2,140.90 plus \$4,000, which gives a total of \$21,105.12, for the investment.

The gross returns from the investment are \$1,140.

The percentage of returns on the investment for a nonfireproof building would be .0601+, nearly.

For a partial fireproof building .0586 +.

And for an entirely fireproof building, it would be .054 +, nearly.

According to H. Hafker's estimate, the complete fireproof building would cost \$16,161.35.

Manly H. Cutter will erect such a building for \$15,413.14.

This building occupies 1,581 square feet of the lot, consequently a nonfireproof building of that area would cost \$9.46 per square foot.

For a partial fireproof building, the cost would be \$9.76 per square foot.

For an entire fireproof building, the cost per square foot would be \$10.89.

From the results obtained in this case, it is evident that the returns are but a very small proportion above the disbursements.

The style of the building and its arrangements is one which cannot be commended in any manner.

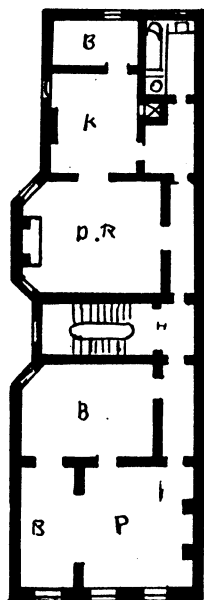
DAVID W. KING,

Architect.

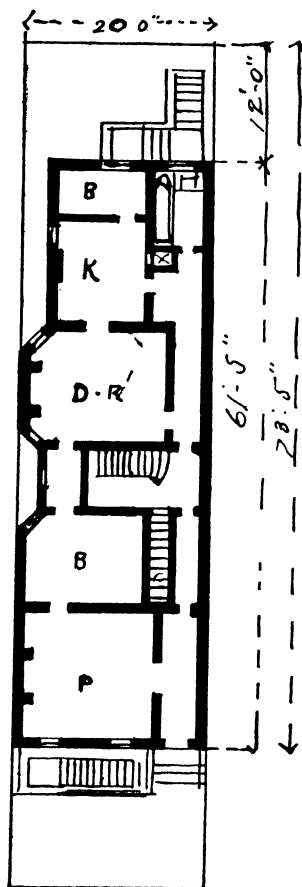
Plan No. 477.

In a dwelling for five families and janitor's apartments, six rooms and bath, situated on the south side of One Hundred and Thirtieth street, eighty feet west of Eighth avenue. The lot is 20 feet front and 73 feet five inches deep. The building is five stories in height, with independent walls, coped with bluestone; flat roofed tinued. The front is faced with Longmeadow red sandstone in basement and first story, Milwaukee brick above the second story string course.

The basement is eight feet six inches in the clear; the first story (ten feet) 10 feet three inches; the second, third, fourth and fifth stories nine feet six inches respectively. The side and rear walls are built of North River bricks, laid in cement mortar. The stairway from first floor to the basement, dumb-waiter, shaft and door and the first-story floor are fireproof in accordance with the Building Laws of the city of New York. The upper floors



Upper Floors



First Story

Plan No. 477.

I

TYPE OF TENEMENT-HOUSE WITH ONE FAMILY ON EACH FLOOR.



are constructed in the ordinary way with three by ten-inch wooden beams, placed 16 inches from center; partitions of three by four inches, studding 16 inches from centers, and all lathed with wooden lath. Fire escape in the rear.

The cost of this building, as filed in the building department, is \$15,000; dated April 2, 1893.

From actual estimates received, the building to-day would cost \$13,516.78.

For partial fireproof construction the cost would be \$13,757.08, or an increase of \$240.30, or .0177 per cent.

For an entirely fireproof building the cost would be \$15,174.53, being a total increase of \$1,427.75, or .105+ per cent.

One apartment in basement for janitor.

	Per year.
First story, one apartment, \$25 per month.....	\$300 00
Second story, one apartment, \$30 per month.....	360 00
Third story, one apartment, \$28 per month.....	336 00
Fourth story, one apartment, \$26 per month.....	312 00
Fifth story, one apartment, \$25 per month.....	300 00
Total	\$1,608 00

Disbursements, vacancies and defaults not known.

The value of the lot according to Charles Griffin is \$5,000.

The total amount of the investment for a nonfireproof building would be \$13,516.78 — cost of lot — or \$18,516.78, and the gross returns would be .0867 per cent.

For a partial fireproof building we would have \$13,757.08 — cost of lot — \$18,757.08 total investment. The gross returns .0857+ per cent.

For a complete fireproof building we would have cost of building, \$15,174.53; cost of land, \$5,000, or \$20,174.53 as a total investment, or an increase of .079 per cent.

H.'s estimate on complete fireproof building would be \$14,598.12.

C.'s estimate of complete fireproof building is \$13,922.28.

This building covers about 1,253 square feet of ground, and the cost of nonfireproof building of the area would be \$10.73 3-4 per square foot.

For complete fireproof building the cost per square foot would be \$12.11.

For partial fireproof building it would be \$10.98 per square foot.

DAVID W. KING,

Architect.

SUPPLEMENT No. II.

The Sweating System.

The "sweating system" as at present existing in the tenement-houses of New York is not without its evils, and they are very great ones, but to-day's conditions show an improvement over those prevailing until 1892. The Congressional Committee, headed by Congressman John DeWitt Warner, of New York, made a valuable report on February 13, 1892, after thorough inquiry in New York, Boston and Chicago. New York, Massachusetts and Illinois now have anti-sweating laws.

The term "sweat work" practically applies only to the manufacture of two commodities — clothing and cigars. In the manufacture of clothing the system is as follows:

The manufacturer proper cuts the materials and bunches together those intended for each garment. He then distributes them among large jobbers, known as "contractors." The contractor is the middleman and the evil of the system lies in the fact that he exists at all. His only legitimate part in the clothing trade is the distribution of the materials after they have been cut, and the collection of them after they have been sewn or "finished." His profit must necessarily consist of the difference between what he receives from the manufacturer and what he pays to the work people. This margin is said to be "sweated" out of the work people, and from this the system, as applied to the making of clothing, gains its name. It is admitted that the manufacturers pay as high a price for the work as they can reasonably afford to pay at prevailing rates for the finished product. The hardship to the work people is the loss of that portion of their wages which is absorbed by the middleman.

That the evils of the plan have not been exaggerated will be more readily understood when it is explained that in many cases there are not only one, but two and sometimes three of these middlemen. Assume that the manufacturer cuts and bunches the materials for a certain line of garments. He offers to pay 25 cents for the work of finishing. A contractor takes the job and in turn farms it out to a sub-contractor, offering to pay 20 cents for the finished product. The sub-contractor must make his profit, and he, the only one of the three who deals directly

with the work people, pays them 15 cents for the finished product. Thus, while the manufacturer pays 25 cents for the performance of a certain task, the person who actually performs it is paid only three-fifths of that sum for his labor, the remaining two-fifths passing into the pockets of the middleman and sub-middleman. If the labor were not worth the full 25 cents, the manufacturer himself would not pay that sum. The only logical conclusion is that the actual worker gets for each garment 10 cents less than he really earns, that 10 cents going towards the support of two persons who are logically unnecessary to the transaction. It is, economically, a wasteful and short-sighted system, as it devotes two-thirds of the money involved to the support of individuals who do absolutely no productive labor.

From a sociological point of view its evils are even greater. The waste is drawn from the source least able to bear it. If there was not among us a large class of human beings involved in absolutely hopeless poverty, no such waste would be tolerated. At the best, the manufacture of cheap clothing offers the smallest possible margin for wage payment. When this is shaved by two-fifths it is at once evident that those influenced by the condition are near to the lowest possible limit of earning capacity, and hence forced to the highest possible limit of working capacity.

During the existence of this committee, it has been almost impossible to make a study of the sweating system which shall be representative of any year except 1894. Abnormal conditions have existed among the sweat shops since the beginning of this examination. These began with the extreme business depression which practically stopped the manufacture of cloaks and clothing. When trade revived to some extent a new complication arose in the form of a strike, which at the time of this writing is still in progress. These two disasters to the trade have accentuated the dire poverty of the "sweat shop" workers. Many cases of actual starvation have developed, and the destitution is most pitiful. This perhaps illustrates the ultimate misery-breeding possibilities of the sweat shop system. But it has greatly hindered the efforts of the examiners to make an accurate statement of the normal conditions of the sweating system in New York.

The present laws (1892-1893) prohibit the use of "any room or apartment in any tenement or dwelling-house" by any "except the immediate members of the family living therein for the manufacture of coats, vests, trousers, kneepants, overalls, cloaks, hats, caps, suspenders, jerseys, blouses, waists, waist bands, underwear, neckwear, furs, fur trimmings, fur garments, shirts, purses,

feathers, artificial flowers, cigars or cigarettes." The manufacturer is also required to get a permit from the factory inspector before he can use any tenement building, or building in the rear of a tenement, for the manufacture of any of the enumerated articles, and this permit must state the number of persons to be employed therein.

This law has by no means done away with all the evils of the sweating system. The fact that the law permits members of the "immediate family" to carry on the old sweat shop work without the supervision of the factory inspector gives opportunities for violations and evasions. It is unquestionably true that boarders, lodgers and even complete outsiders are frequently admitted to family intimacy for no other purpose than evasion of the law, and it seems safe to assert from common report that the manufacturers and contractors sometimes abet the workers in these violations. The factory inspection, so far as this committee's examiners have reported, does its work honestly and as thoroughly as in its power. Complaints are made, however, of lack of sufficient force. The enforcement of the new laws wrought a most beneficial change. Seventeen thousand one hundred and forty-seven persons employed in the clothing trade were compelled to leave the tenements in 1893, while during the same year 371 tenements were entirely cleared from "sweaters," and are now used for living purposes only, while 85 tenements were cleared of residents and remodeled into shop buildings.

It is assumed that the lack of sufficient force is, in some measure at least, responsible for the violations which are instanced hereafter. It should be noted that this report is by no means a thorough statement of the existing circumstances in this city. About one-fourth of the sweat shop district was covered by this committee's examiners.

On the first floor of a house on Ridge street, a family of Russian jews was found making cloaks on three machines. They were man, wife, boy of 16 and girl of 17. Besides them, one man and one woman were at work in open violation of the law, which allows only the immediate members of the family to work in tenement-house rooms. The kitchen was the work-room. On the floor of this room sat a little girl, six years of age, playing on a pile of unfinished cloaks. Close beside her was a certain vessel which a still smaller child was putting to its appropriate use. Three cats were rolling about on a pile of unfinished clothing.

In Essex street was found a family consisting of father, mother and two children (16 and 17), and two men who said they were brothers to the tenant working on men's clothing. The

family occupied three rooms. The kitchen was the work-room, and the whole place was in a filthy and unwholesome condition.

In Elizabeth street were found two families who employed several workmen in violation of the law. Cooking, eating, sleeping and working were all done in the same room, and the goods were piled upon the beds and tables where the food lay. The filth was indescribable.

These are fair samples of the condition as it exists to-day. Far worse conditions than these were discovered among the tenement cigar factories. The manufacturer is proprietor or lessee of tenement-houses containing from 6 to 24 families. He rents the rooms to his workmen and deducts the rent from their wages every week, so that he has factories which, instead of costing him large sums in rentals, actually yield him rentals at the regular rate obtained by the ordinary tenement-house landlord. The system is illustrated by the following:

— — have four tenement factories, Nos. 341 to 347 East Seventy-third street.

No. 341 contains 20 families, consisting of 85 persons. Each dwelling contains a kitchen 13x10 and two sleeping rooms 7x10 1-2 and 6x7. The ceiling is 8 feet high.

No. 343 contains 17 families and 72 persons.

No. 345 contains 16 families and 75 persons.

No. 347 contains 18 families and 76 persons.

The four houses collectively contain 72 families, with 308 individuals. There are also 24 persons who work in these buildings but reside elsewhere. The rent ranges from \$9 to \$10.75, and the wages from \$4 to \$5.75 per thousand. One of the workers, when question in regard to hours of labor, made the following reply: "Write that I very often get up at 5 p. m. and see families already at work, who continue to work until midnight." It is true that some work from 5 a. m. until 1 o'clock, then fling themselves without undressing upon the bed, sleep for a few hours and then resume their work, continuing this mode of life until sickness overtakes them or overtaxed nature forces rest. Dirt predominates in these buildings. Within nine months two children had died of diphtheria and a man of consumption. The kitchen is always the working-room.

— & — have several tenement-house factories on East Fifty-fourth street near Second avenue.

No. 316 East Fifty-fourth street harbors 16 families, with 70 persons. Each family occupies a living-room 14x12, a kitchen 9x6, and two sleeping rooms each 7x6. The ceiling is 8 1-2 feet high. One of the sleeping rooms has no window at all; the second has one looking out on the dark corridor. The rent ranges from \$8 to \$10.50.

No. 314 contains 20 families, 93 persons. Each family occupies a living room 13x10, kitchen 10x10, and a bedroom 6x5 1-2. The ceiling is 8 feet high. The rent is \$10. In this house a child died recently of diphtheria.

In No. 312, where the rooms are like those of 314, there are 20 families, with 90 individuals. The mortality in this house for a single year was one man, one woman and two children. Wages vary from \$4 to \$6 per thousand. A family containing two working members produces on an average 2,600 cigars a week. Apartments, stairways, courtyard and cellar are dilapidated; no white-washing has been done in a long time. The manufacturer who owns the houses deducts his rent from the weekly wages of the workers.

The water-closets are in a filthy condition. In one apartment a mother was busy at bunch-making with an infant at the breast

— & — own the houses 303 to 309 East Seventy-third street. No. 303 contains 16 families, representing 58 persons. Each family occupies a kitchen 11x12 and two bedrooms, each 7x8. One room has no ventilation at all. The bedroom has the usual opening in the wall 16 inches square and looking out on the dark corridor. Hours of labor begin about 5:30 a. m. and end about 10 or 11 p. m. Wages vary from \$5 to \$6.25 per thousand. Two persons on an average produce 2,700 cigars per week. The rent is \$10.

In one room a mother was busy at work and was at the same time rocking a cradle with her feet. In another apartment one man, who worked from 4 a. m. till midnight, had last week, after the deduction of rent, 40 cents left to live upon. Another woman had 10 cents left last week after the deduction of the rent. Her husband died two years ago of consumption.

The other houses, 305, 307 and 309, resemble 303.

No. 305 is occupied by 19 families, with 67 persons. In one dwelling the husband lay sick while the wife was straining every nerve to earn enough to support a family of seven.

In another dwelling the examiner surprised a family of six at dinner. There were but two chairs in the dwelling, which were occupied by the father and mother. The latter held the youngest child on her lap, the second was standing, the remaining two knelt at the table. The meal consisted principally of boiled or smoked sausage, which required no preparation. This saves time.

In one room of No. 307 a young woman sat at the work-table rolling cigars with her hands, with her feet rocking a cradle in which a sick babe was lying. Hours of labor average from 6 a. m. up to 10 or 11 p. m. Some families work steadily from 5 a.

m. until midnight. Wages vary from \$4.50 to \$5.50 per thousand. A family counting two working members produces 2,500 cigars per week.

—, — & — lease the houses 322 to 328 East Sixty-third street. They contain from 16 to 20 families each. Each dwelling consists of a living-room 12 by 9 1-2 feet, and two sleeping-rooms, respectively 9 1-2 by 7 feet and 6 by 6 1-2 feet. Height, 7 1-2 feet. One of the sleeping-rooms has an aperture 15 inches square, the other lacks even this. Rent, \$4 to \$9.75. Wages, \$5.75 per thousand. Two working members of a family can produce on an average 2,500 cigars per week. One woman, when questioned as to the hours of labor, replies: "Oh, there are some who scarcely sleep three or four hours, but we are determined not to work ourselves to death. We quit work at 10 p. m."

It does not seem wise at the present time to recommend further legislation upon the subject. The matter may very well be made the subject of further legislative inquiry.

EDWARD MARSHALL.

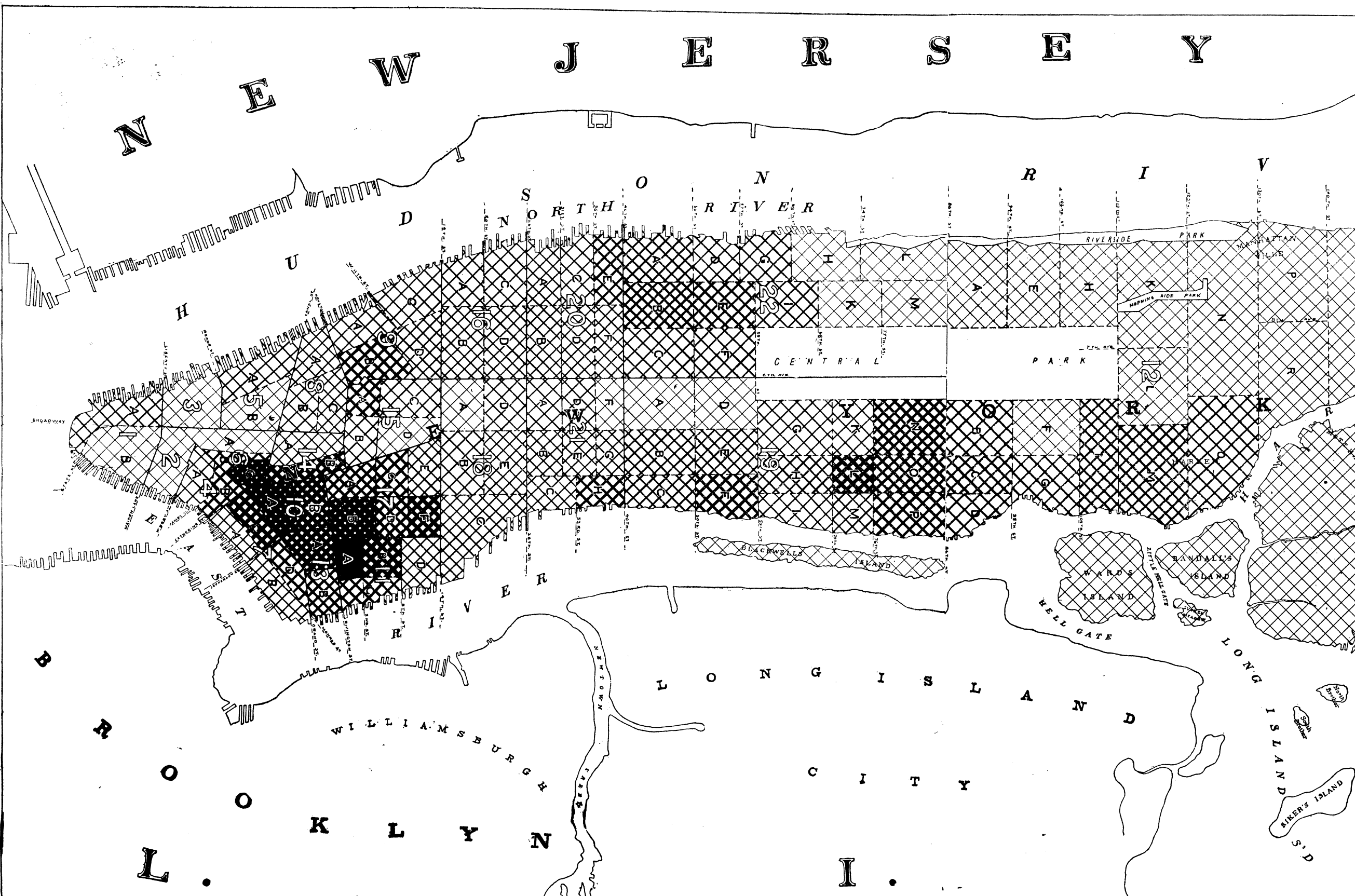
SUPPLEMENT No. 12.

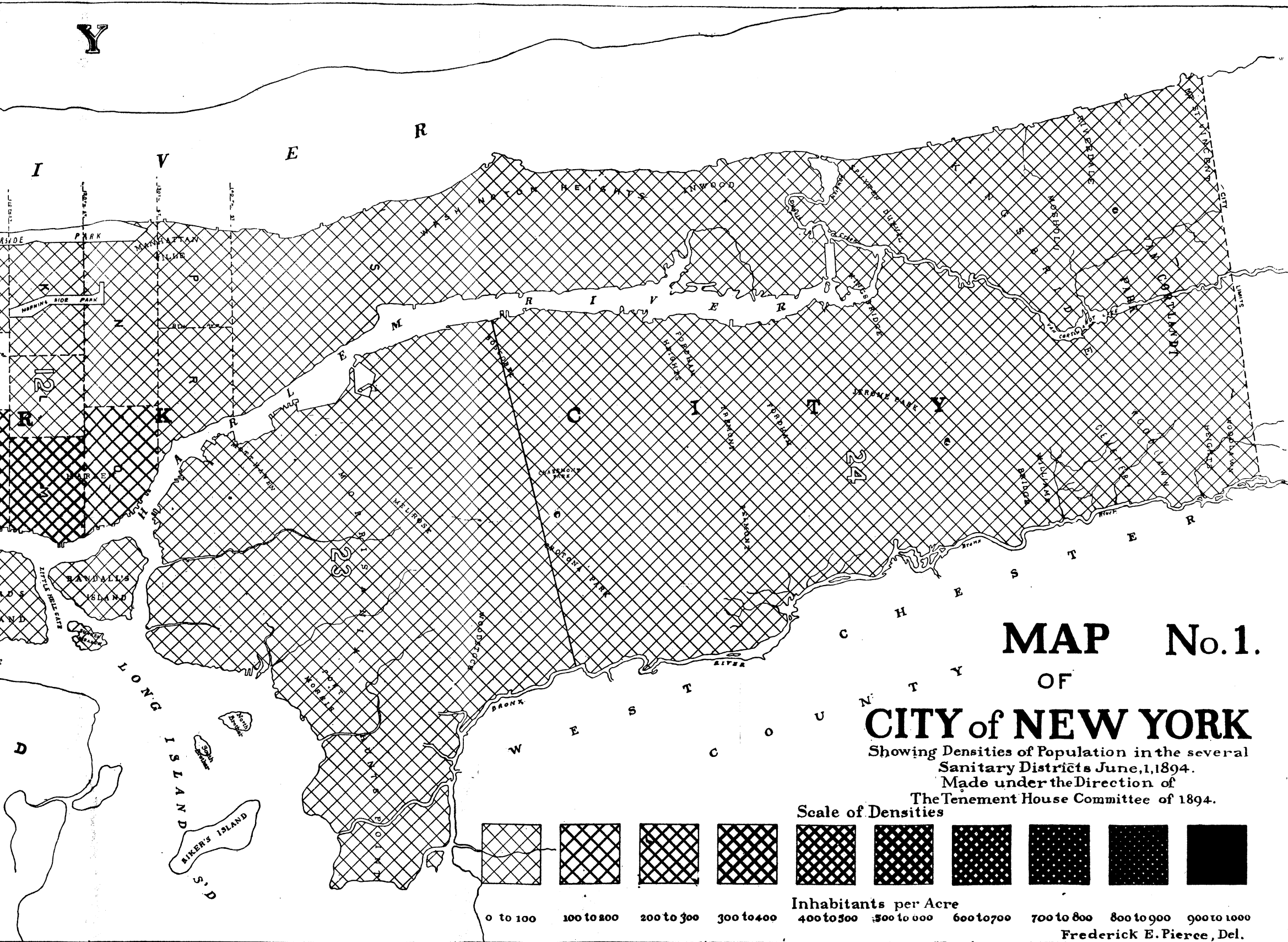
Tables of Comparative Density of Population in Different Cities of the World, by Roger S. Tracy, M. D.
SOME CITIES OF THE WORLD ARRANGED WITH RESPECT TO THE DENSITY OF THEIR POPULATIONS.

Rank	CITY.	Density per acre.	Year.	Population.	Acreage.
1	Paris	125.2	1891	2,424,705	19,024
2	Berlin.....	113.6	1894	1,767,639	15,562
3	Cologne.....	111.8	1894	306,550	2,743
4	Liverpool.....	97.9	1893	510,514	5,215
5	Glasgow	92.5	1891	555,649	6,111
6	New York*	76.0	1893	1,891,306	24,893.156
7	Tokio	67.8	1891	1,214,776	17,912
8	Bombay	57.7	1893	821,764	14,945.94
8	London (Registration)	57.7	1893	4,306,411	74,672
9	Calcutta	57.0	1892	681,560	11,850
10	Dresden.....	44.1	1894	311,168	7,059
11	Prague.....	44.1	1894	332,357	7,531
12	Manchester.....	39.9	1893	515,598	12,922
13	Vienna	33.2	1894	1,465,357	44,460
14	Hamburg	32.7	1894	594,209	18,169
15	Munich	31.1	1894	399,986	12,854
16	London (Greater).....	13.2	1893	5,849,707	443,421
17	Budapest.....	11.5	1894	552,769	47,869
18	Frankfurt-a-M.....	10.8	1894	198,238	18,364

* New York, below the Harlem (i. e. Manhattan Island), had a density of 143.2 per acre.
 Supplement No. 15.)

The estimated population of New York in 1894 was 1,957,452. (866)





N E W J E R S E Y



H U D S O N R I V E R

CENTRAL PARK

RIVERSIDE PARK

MORNING SIDE PARK

BLACKWELLS ISLAND

WARD'S ISLAND

RANDALL'S ISLAND

HELL GATE

L O N G I S L A N D

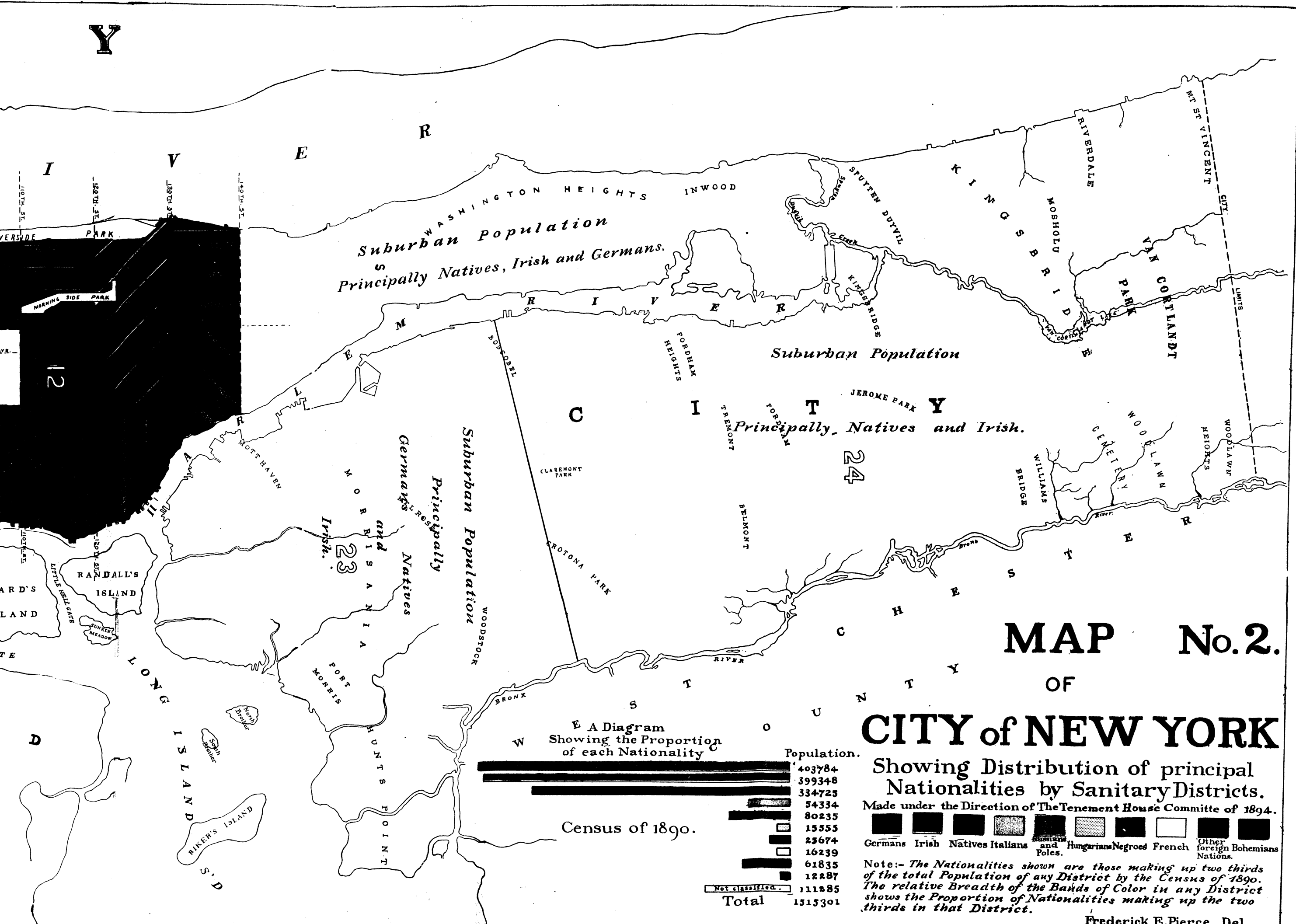
WILLIAMSBURG

C I T Y

K L Y N

I

ISLAND
RIKER'S
S.D.



*Suburban Population
Principally Natives, Irish and Germans.*

Suburban Population

Principally Natives and Irish.

*Suburban Population
Principally
Germans
and
Natives
Irish.*

Suburban Population

E A Diagram
Showing the Proportion
of each Nationality

Census of 1890.

	Population.
	403784
	399348
	334723
	54334
	80235
	15555
	25674
	16239
	61835
	12287
Not classified.	111285
Total	1515301

MAP No. 2. CITY of NEW YORK

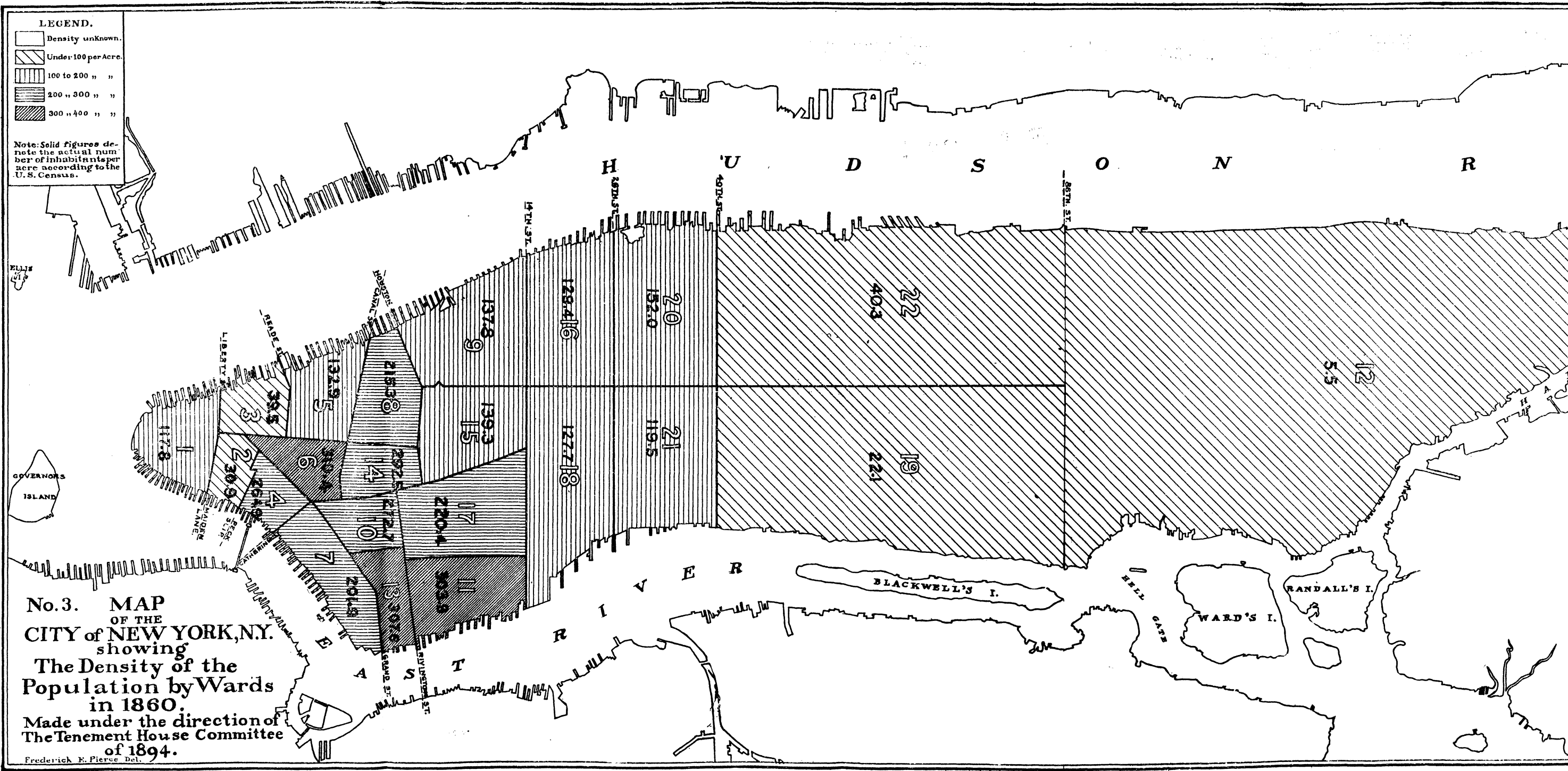
Showing Distribution of principal
Nationalities by Sanitary Districts.

Made under the Direction of The Tenement House Committee of 1894.

Legend:
Germans Irish Natives Italians and Hungarians Negroes French Other foreign Bohemians Nations.

Note:- The Nationalities shown are those making up two thirds of the total Population of any District by the Census of 1890. The relative Breadth of the Bands of Color in any District shows the Proportion of Nationalities making up the two thirds in that District.

Frederick E. Pierce, Del.



LEGEND.

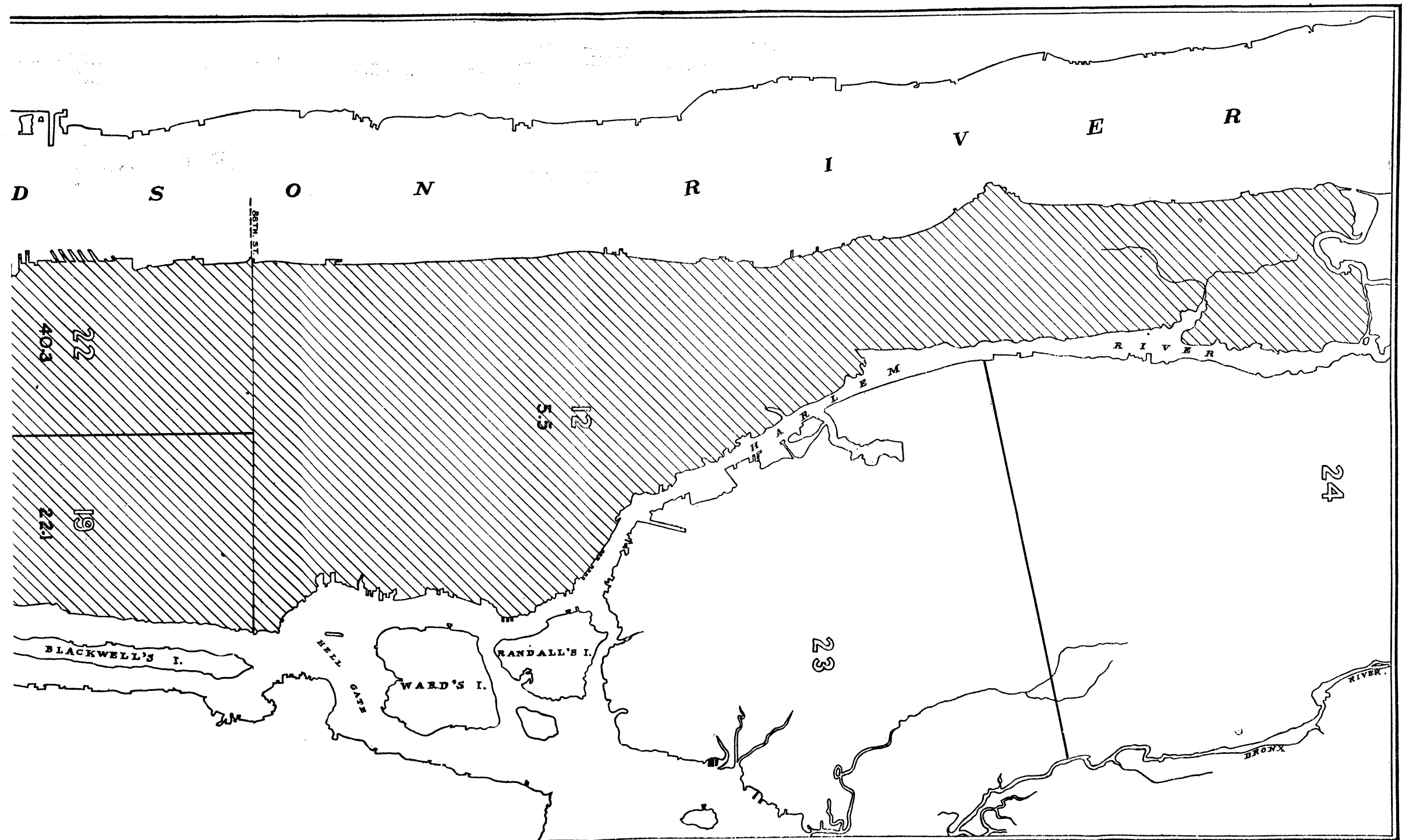
- Density unknown.
- Under 100 per Acre.
- 100 to 200 " "
- 200 " 300 " "
- 300 " 400 " "

Note: Solid figures denote the actual number of inhabitants per acre according to the U. S. Census.

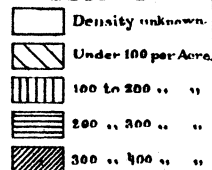
No. 3. MAP OF THE CITY of NEW YORK, N.Y. showing The Density of the Population by Wards in 1860.

Made under the direction of The Tenement House Committee of 1894.

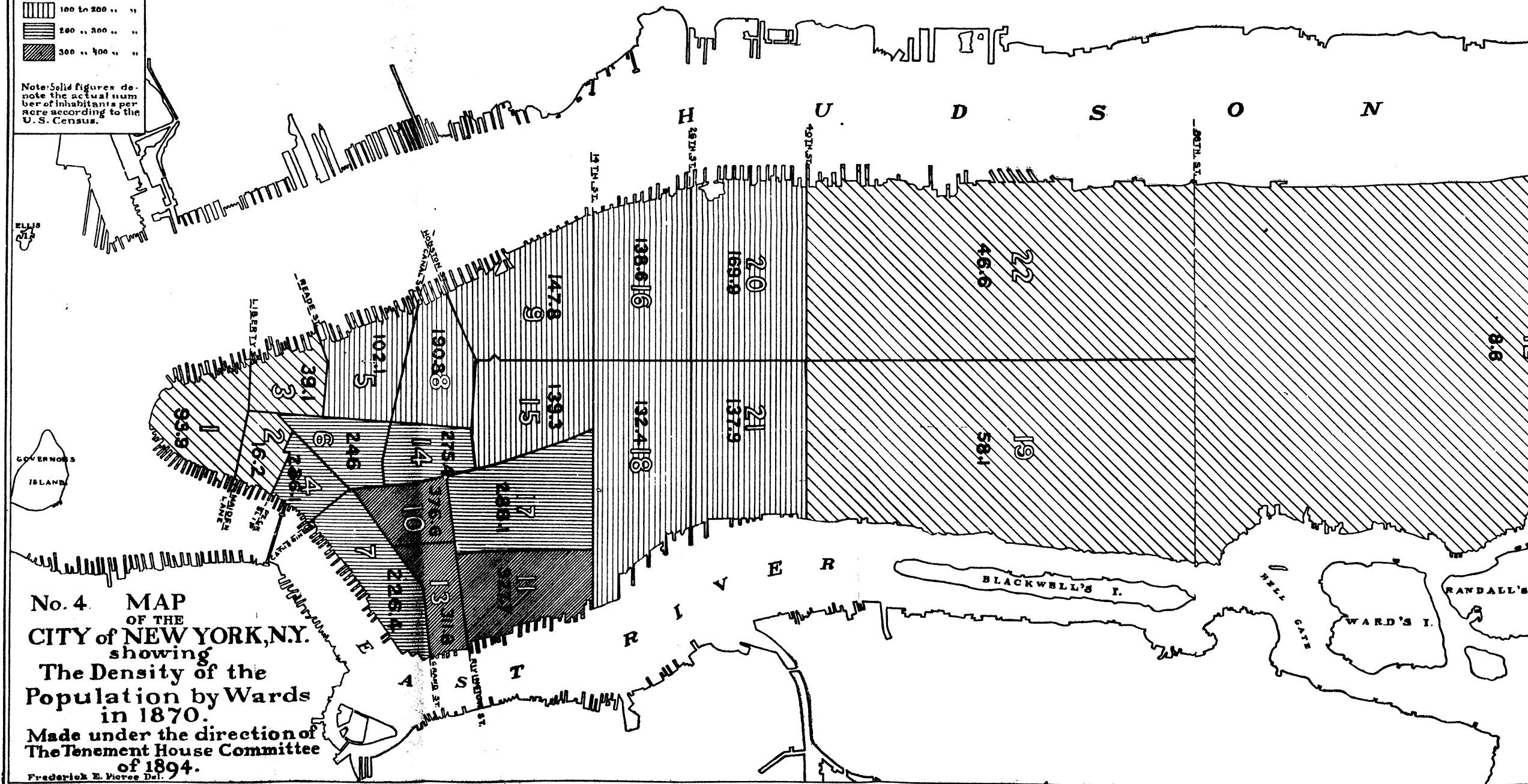
Frederick E. Pierce Del.



LEGEND.

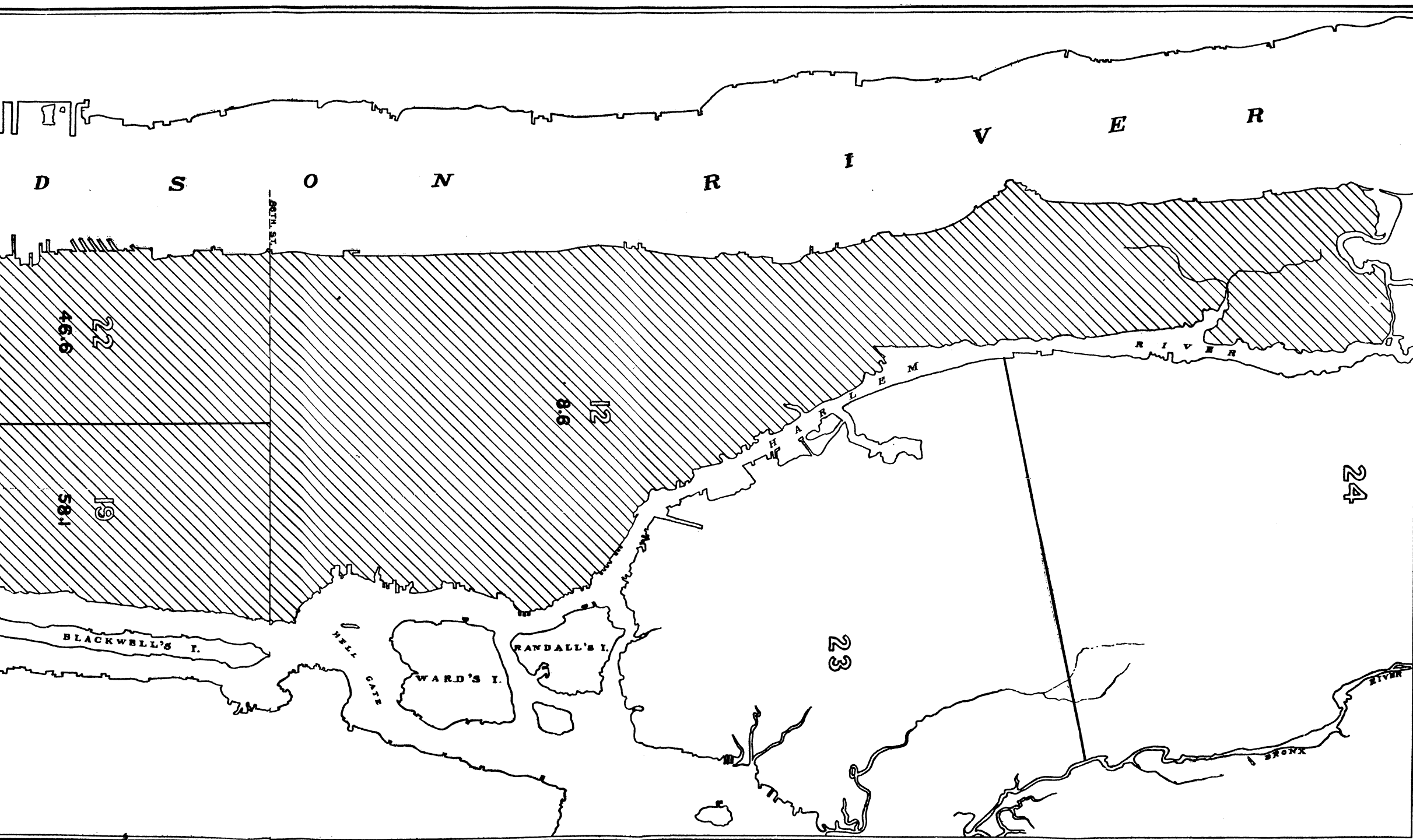


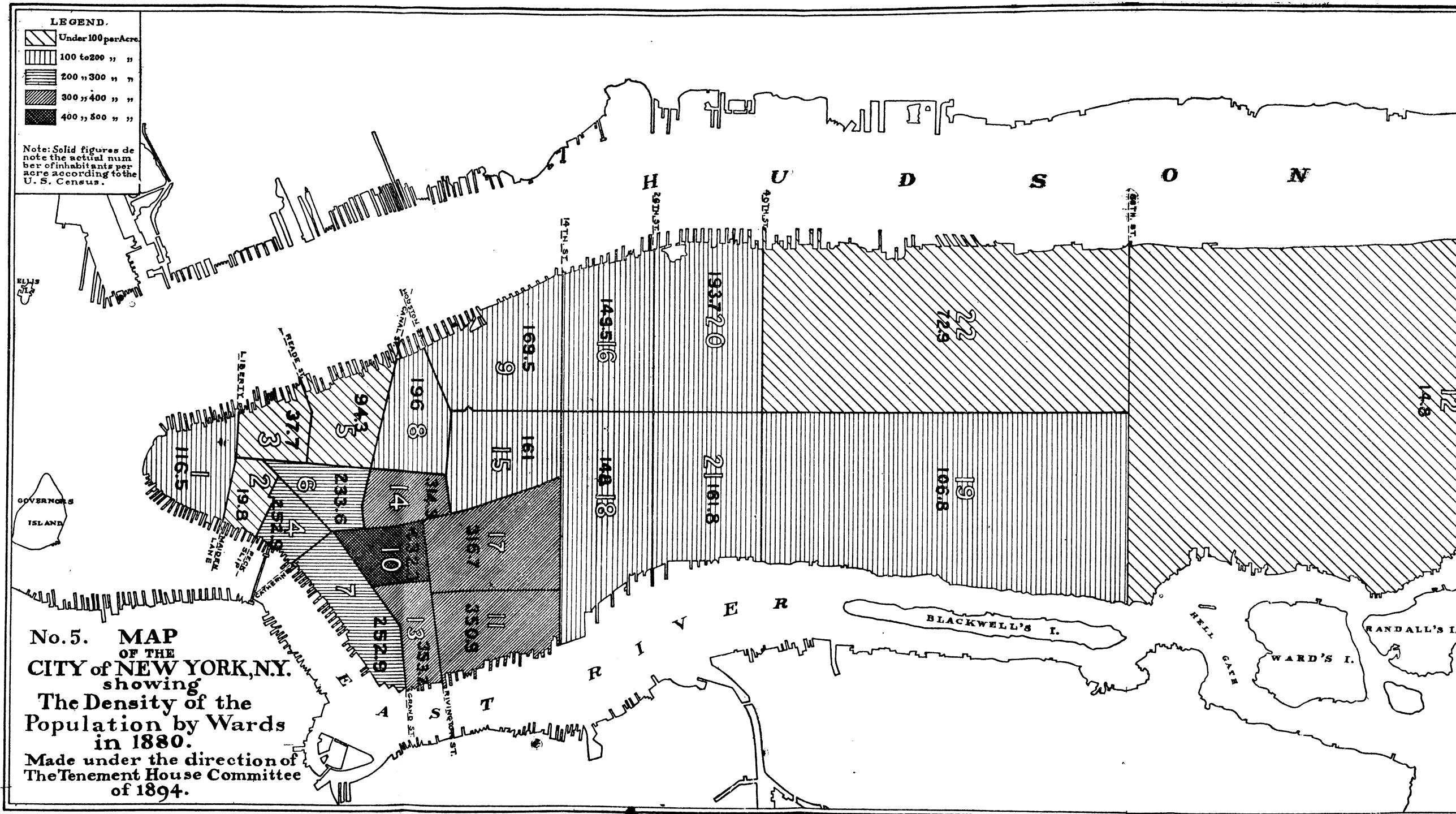
Note: Solid figures denote the actual number of inhabitants per acre according to the U. S. Census.

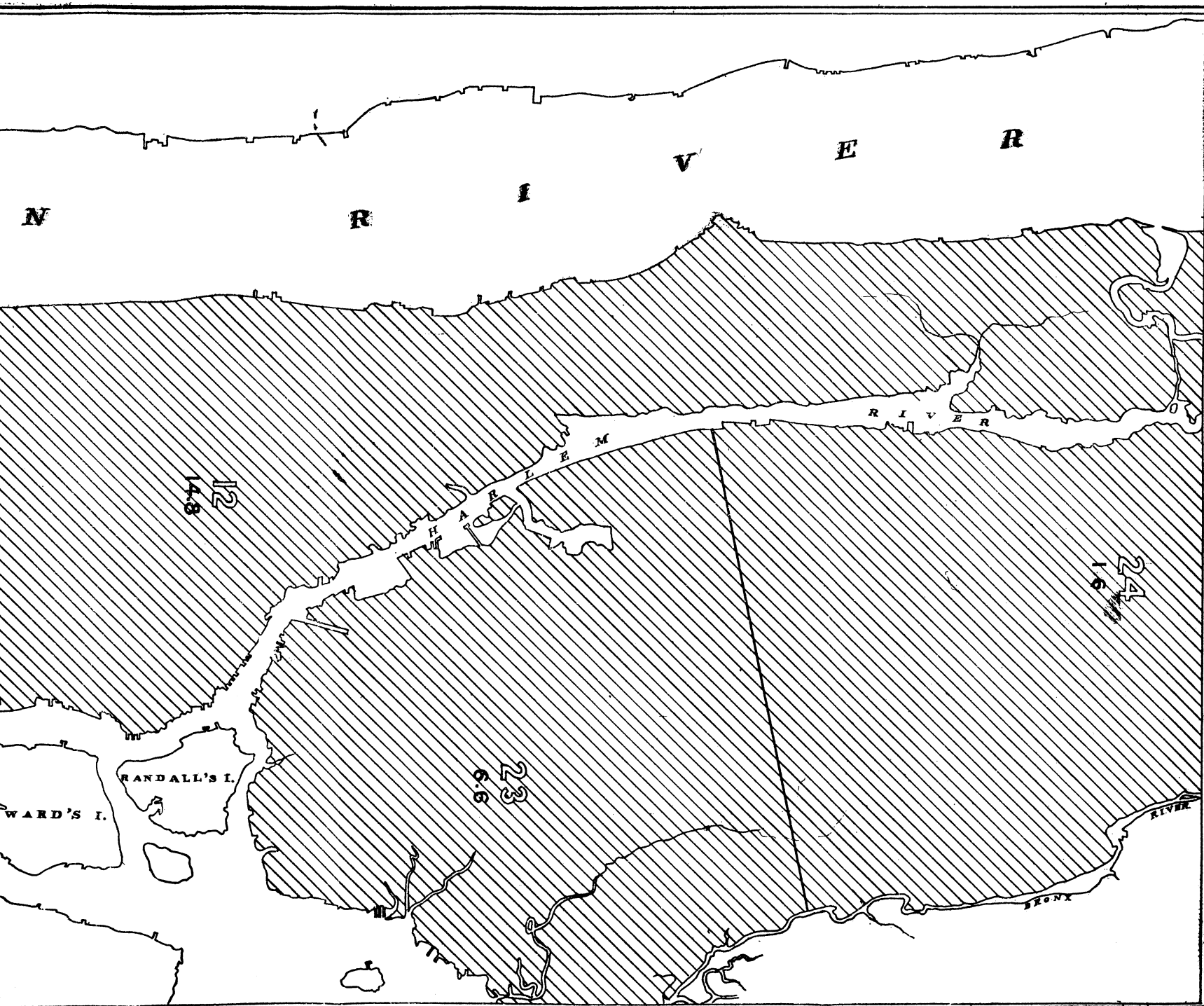


No. 4 MAP
OF THE
CITY of NEW YORK, N.Y.
showing
The Density of the
Population by Wards
in 1870.

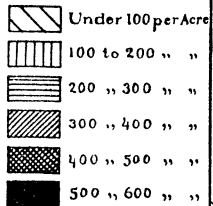
Made under the direction of
The Tenement House Committee
of 1894.
Frederick E. Pierce Del.



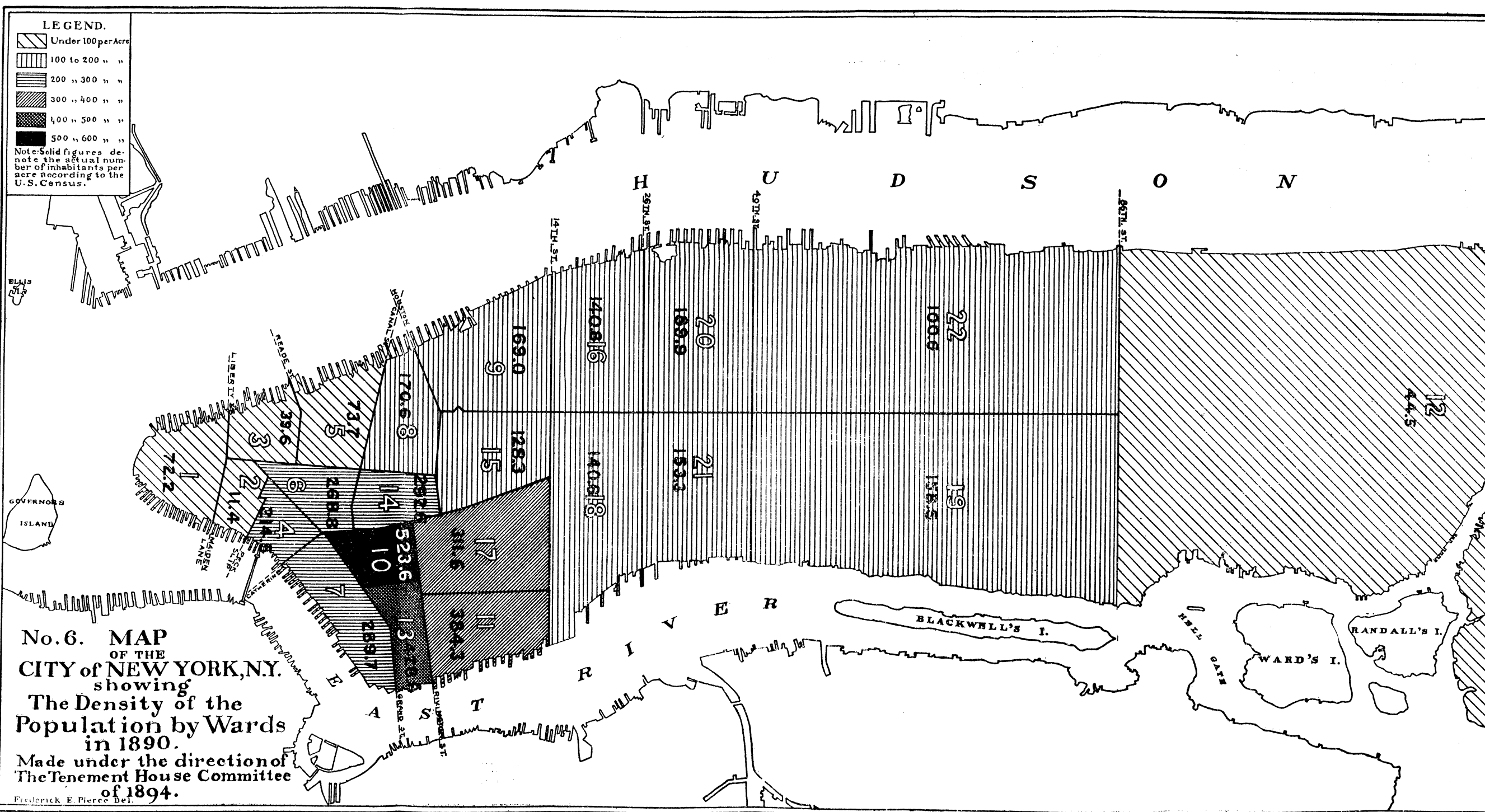




LEGEND.



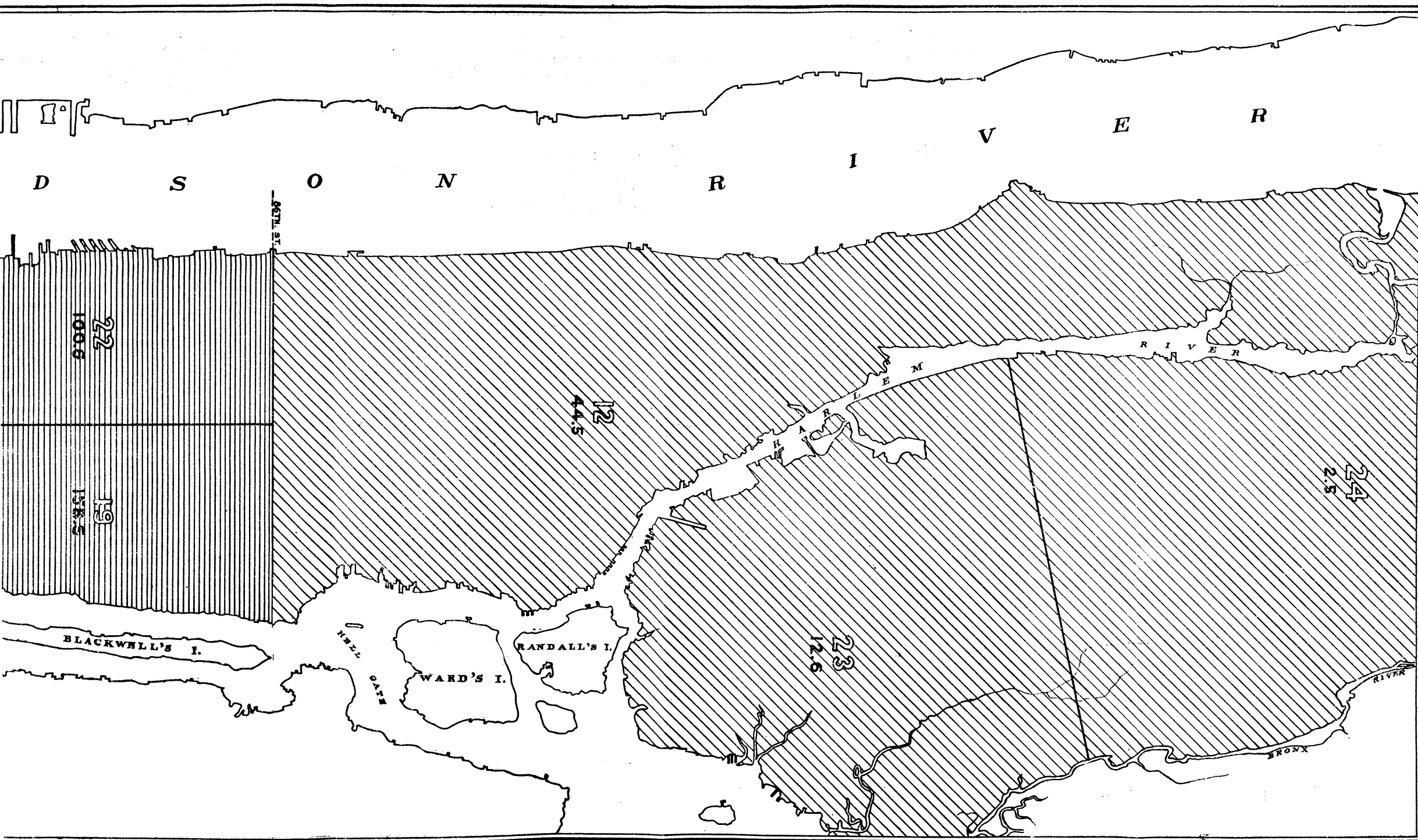
Note: Solid figures denote the actual number of inhabitants per acre according to the U.S. Census.



No. 6. MAP
OF THE
CITY OF NEW YORK, N.Y.
showing
The Density of the
Population by Wards
in 1890.

Made under the direction of
The Tenement House Committee
of 1894.

Frederick E. Pierce Del.



DISTRICTS IN CERTAIN CITIES OF THE WORLD ARRANGED IN THE ORDER OF THE DENSITY OF THEIR POPULATIONS.

257

Rank	DISTRICT.	City.	Density per acre.	Date.	Population.	Area.
1	San. dist. A.	Eleventh ward, New York. }	986.4	1894	*31,564 }	32
2	Koombarwara	Bombay	800.47	1893	25,615 }	46.06
3	Chukla	Bombay	759.66	1881	34,990	51.58
4	Kharatalao	Bombay	718.26	1881	37,048	41.64
5	Tenth ward	Bombay	689.02	1881	28,691	106
6	Josefstadt	New York	626.26	1893	66,383	22
7	Arrondissement Bonne-Nouvelle	Prague	485.4	1887	10,680	69.183
8	Bethnal Green, North	Paris	434.19	1891	30,041	141
9	St. Rollox	London	365.3	1891	51,520	45
10	Brownfield	Glasgow	350	1891	15,571	11
11	Calton proper	Glasgow	345	1891	3,797	66
12	Mile End Newtown (Whitechapel) ..	Glasgow	343	1891	22,637	59
13	Spitalfields (Whitechapel)	London	303.5	1891	17,908	77
14	Colootollah	London	291.6	1891	22,456	224
15	Nihonbashi-Ku	Calcutta	204	1892	50,781	724
16	Jorobogan	Tokio	187.4	1891	135,689	243
17	Jorosanko	Calcutta	161	1892	39,180	262
18	Bowbazar	Calcutta	159	1892	41,657	147
19	Moochepara	Calcutta	154	1892	22,608	263
20	Kanda-Ku	Calcutta	148	1892	39,109	762.3
21	Below Harlem river	Tokio	146.6	1891	111,784	12,575.81
22	Altstadt	New York	143.2	1893	1,800,846	311
23	Neustadt	Prague	143	1887	44,485	859
		Prague	93	1887	79,891	

* Estimated.

SUPPLEMENT No. 13.

New York's Death-Rate as Compared With That of Other Cities of the World.

BY ROGER S. TRACY, M. D.

It is extremely difficult to compare the conditions which affect the death-rate in New York city with those which affect the death-rate in other cities of the world. Differences in the methods of collecting the statistics which are in vogue in different cities often result in exceedingly misleading death-rates. Many cities carefully eliminate the deaths of people who are not citizens, which occur within their corporate limits. The density of the population, and its character as affected by immigration and nationality, result in an increased death-rate in New York which should not be taken as bearing testimony against its healthfulness as a place of residence. The following list of cities, with population, deaths and death-rates is taken from the annual report of London, England, for 1893, published by the authority of the registrar-general, excepting that the figures for New York are taken from our own reports:

Cities.	Population enumerated or estimated.	Deaths.	Annual rate per 1,000 living.
Edinburgh	267,261	5,268	19.8
Glasgow	677,883	15,789	23.4
Dublin	349,594	9,409	27.0
Calcutta	466,460	12,055	25.9
Bombay	821,764	23,059	28.1
Madras	452,518	18,477	40.9
Paris	2,424,705	52,739	21.8
Brussels (with Faubourgs)	488,188	9,675	19.8
Amsterdam	437,892	8,136	18.6
Rotterdam	222,233	4,852	21.9
The Hague	169,828	3,232	19.1
Copenhagen	337,500	6,845	20.3
Stockholm	249,246	4,770	19.2
Christiania	161,151	2,820	17.5
St. Petersburg (without Fau- bourgs)	954,400	29,242	30.6

Cities.	Population enumerated or estimated.	Deaths.	Annual rate per 1,000 living.
Moscow	753,469	27,061	35.9
Berlin	1,714,938	36,032	21.0
Hamburg (State)	634,878	12,977	20.4
Dresden	308,930	7,195	23.4
Breslau	353,551	10,256	29.1
Munich	385,000	10,075	26.2
Vienna (with suburbs)	1,435,931	34,468	24.0
Prague	327,953	9,075	27.7
Buda-Pesth	539,516	14,432	26.8
Trieste	158,314	4,420	27.9
Rome	449,430	10,020	22.3
Milan	430,829	11,113	25.8
Turin	334,090	7,013	21.0
Venice	163,601	3,993	24.5
Cairo	374,838	19,023	50.9
Alexandria (49 weeks)	231,396	7,890	36.3
Boston	487,397	11,710	24.0
New York	1,891,306	44,486	23.5
Brooklyn	990,891	20,964	21.2
Philadelphia	1,115,562	23,615	21.2
Baltimore	455,427	9,554	21.0
Cincinnati	325,000	6,092	18.7
New Orleans	254,000	7,130	28.1
San Francisco	330,000	5,919	17.9

In many cases, the number of deaths in this table is obtained by adding together the numbers given in the respective weekly reports for 1893 (52 weeks). This number usually differs a little from the actual number for the year but not enough to affect the death-rate materially—never probably more than two or three-tenths.

In consulting a table like the one given here it should always be borne in mind that a fair comparison between one city and another cannot be made by comparing the crude death-rates as they are given above. This is in the main because the proportions of the sexes and ages are so different in different places. It is evident, on the surface, that a city that has a large proportion of its population of an age when the mortality is low and a small proportion of an age when the mortality is high, will have a lower death-rate than a city where the converse is the case, even if the sanitary condition is about the same. For example, a city with a large proportion of children and aged people and a small proportion of adults at the prime of life, will have a higher death-rate than one with comparatively few children and old

people and a large proportion of adults of the healthy age. This is one reason why a direct comparison of the death-rate of houses occupied by the poorer classes with those of the wealthy class is always in some degree misleading, because the poor usually have larger families of children, and the latter have many domestic servants of an age when the mortality is low.

Therefore, it is that while death-rates, uncorrected, are useful for comparing the sanitary condition of the same town during a succession of years, because, excepting under extraordinary circumstances, the distribution of age and sex does not vary materially from one year to another in the same community, they are not useful for comparing different places with one another without allowance being made for such differences. The method of making the correction is rather technical for repetition here,* but an illustration of the results of its application by Dr. Ogle, of England, may be given, as follows: "In 1881 the general death-rate of England and Wales was 18.9 per 1,000, of all ages, while the general death-rate in France was 22.0, i. e., 3.1 higher than England. But had the age-distribution of the French population been identical with that of the English population, the French death-rate would have been 20.9 and not 22.0. Thus of the 3.1 difference between the two rates, 2.0 was due to difference of health condition and 1.1 was due to difference of age-distribution."

The fifty-fifth annual report of the registrar-general of England (1892) closes with these words: "In previous reports it has been pointed out that as the sex and age-distribution of the population varies greatly in different countries, and as the rates largely depend upon such distribution, the rates in one country can not safely be compared with the rates in another, without correction for this difference in the constitution of the several populations. In order to allow of fair comparison it is most desirable that the several countries should agree upon some 'standard of life table population,' that is to say, a population with fixed age and sex-distribution for international use, so that the birth, marriage and death-rates for each country may be calculated by this standard. I recommend this suggestion to the notice of the respective governments."

ROGER S. TRACY, M. D.

*The method of making this correction may be given briefly as follows: A death-rate is taken as a standard (in England the standard rate is the rate during the previous ten years for all England and Wales); the death-rate of any particular town is then calculated by applying this death-rate at each age-period, using the number of persons at each age-period as a multiplicand and the standard rate at each age-period as a multiplier. The death-rate for the entire population of the town, having been obtained in this way, will usually be found to differ from the standard death-rate which has been adopted, and the ratio between the two, viz.: $\frac{\text{Standard death-rate}}{\text{Calculated death-rate}}$ forms the factor of correction for that particular town, by which its annual death-rate must be multiplied, and thus either increased or diminished, to make it correspond, for comparative purposes, with the death-rates of other towns in which the age and sex distribution is different.

SUPPLEMENT No. 14.

Maps of Density of Population and Nationality.

Map 1.

The ideal density map of the city would be one in which each block is shaded according to its density, that is, the number of inhabitants to the unit of area, e. g., an acre. Such a map would not show the minute variations that would be shown by a table of densities (see table I, column 8), for the best eye probably can not distinguish more than a score of shades, and the average eye may be unable to distinguish 10, while a variation in numbers, no matter how slight, appeals to the mind. The map, however, with a scale of 25 shades representing densities, would express admirably the actual density; the points of congestion being black, the density shading off on all sides to points of least congestion, intensifying again in other dense districts, and finally showing parks and unimproved blocks. But such a map would have to be very large to show individual blocks, and its size, with other difficulties, would make it expensive to prepare and reproduce. Besides these objections, the population and area of each block from which the density is calculated are not readily obtained, if indeed they are to be obtained at all. The idea of such a map had to be abandoned.

The next best thing was to divide the city into districts and shade these. It being necessary to know the population and area of these, the choice was limited to those which are statistical divisions. Wards and sanitary districts are such divisions, and the area of them is known with the population on June 1, 1890. There are 24 wards and 114 sanitary districts, the latter being minor divisions of the wards. On account of their number, which would yield a greater variety of densities, the sanitary districts were preferable, and more so on account of their being smaller where the population is denser. They are described in the Eleventh Census in the Monograph on "The Vital Statistics of New York and Brooklyn," compiled by Dr. J. S. Billings. Their area in acres is given (see table I, column 7). Their population on June 1, 1890 (see table I, column 5). The population of the city June 1, 1890, was

1,515,301. On July 1, 1894, it was estimated to be 1,957,452,* an increase of 29.179 per cent. This estimate, it should be noted, may be somewhat too liberal, as the rate of increase may have changed, owing to a decrease in immigration and a temporary emigration attributable to hard times. The population of each district was increased by a like amount (see table I., column 6). By dividing the population in column 6, by the areas in column 7, the densities in column 8, were obtained. These were seen to vary between 3 in the 24th ward, and 986.4 in sanitary district A of ward 11. Thus they were easily divided in 10 classes of even hundreds. A scale of 10 shades, denoting the 10 classes of densities, was selected. The spaces on a map of the city outlining the sanitary districts were shaded according to the scale of densities. This done, the map was completed.

The map represents the important geographical features of the city of New York, the principal parks, the wards and sanitary districts with their boundaries, some of which are named. Table I, column 3, bounds the wards and sanitary districts completely, and column 4, gives the predominant characteristics of each. From this the names of those boundaries not noted on the map can be obtained.

A comparison of the spaces representing the sanitary districts, with the scale of densities, gives, within the limit of the scale, the actual densities of the districts. If the density of any district is desired more accurately or its population or area sought, a consultation of table I, column 8, will give it.

The general effect of the map brings out the districts where the population is concentrated in contrast with those where it is less concentrated, but it shows also how they blend into one another.

These crowded districts are the sites of settlements which to old New York were out of town. With the exception of the upper east side they grew to be the homes of wealth and fashion. Now they are the points where the tenement population is greatest.

Map 2.

The Monograph on the "Vital Statistics of New York and Brooklyn" gives not only the total population of each sanitary district, but also of what it consists. It gives the colored contingent in one table, pages 230-233, and the more prominent nationalities such as German, Irish, Italian, Russian and Polish,

* NOTE.—This estimate is based upon the U. S. census of 1880, and the N. Y. State census of 1892, without reference to the U. S. census of 1890.

etc., based on the nationality of the mother in another table, pages 234-237. These are the only data to be had on the distribution of nationalities in the city. They are fortunately sufficient for constructing a map.

Whether it is fair to class the child as belonging to the nationality of its mother is a question. At the outset it must be remembered that the question is sociological and not political, and that prejudices are to count more than legal definitions. For one thing the child is believed to be more apt to inherit its mother's tastes and prejudices than its father's. And there are many more people in the city with foreign mothers than with foreign fathers. Of the 1,489,627 whites in New York on June 1, 1890, 636,986 were foreign born. And of the 852,641 native born 582,154 had one or both parents foreign. Of these 64,238 had American mothers and foreign fathers, leaving 518,403 with foreign-born mothers. (Incidentally this shows how few American women marry foreigners.) But what proportion of native-born with foreign mothers had American fathers can not be said. A third is probably high, and it would mean that 982,588 of 1,515,301, the total, or 64.8 per cent., had foreign parentage, while 1,155,389 or 76.2 per cent. had foreign-born mothers. In the light of such facts, as the likelihood of our population inheriting its maternal prejudices, and such a large proportion of it having foreign-born mothers, the fairness of the table from a sociological standpoint as a basis of a nationality map seems no longer questionable.

The table (79 Vital Statistics) gives 12 nationalities including native, and lumps the rest under the head of "other foreign countries." Table (78 Vital Statistics), gives the colored population. Of the 12 given, those of England and Wales, Scotland, Scandinavia and Canada were disregarded; first, because though as numerous as some others they were yet so evenly distributed over the city as to be lost to sight, and, secondly, because, with the exception of Scandinavia, they are more like Americans than the others.

The best way to represent different nationalities is by different colors.

The following convention was adopted: Red for German; green, Irish; blue, native Americans; orange, Italians; brown, Russians and Poles (shown together); lake, Hungarians; purple, Bohemians; white, French; dark green, other foreign nations; black, negroes.

By coloring each district with bands of colors whose breadths bore the same relation to the sum of the breadths as the amount of the nationalities they represented bore to the total population

of the district, a map showing the proportion of each nationality and its distribution could be produced. Other methods for accomplishing this were considered, but this, on many accounts, seemed the best, and was, therefore, adopted.

Each of the ten nationalities selected, it was found, would appear more or less in each district. Those appearing to a slight extent would be a detriment to the more prominent ones and to themselves by diminishing contrast and thus also injuring the general effect of the map. The rule to represent those nationalities only which made up two-thirds or more of the population of the district, was then adopted. The bands of color were made of breadth proportional to these nationalities' quota in the two-thirds and so the map was prepared.

It represents quality and not quantity of population, so when sanitary district S. of ward 12, and the 23d and 24th wards came to be dealt with it was decided not to color them. They are thinly populated mainly with natives, Irish and Germans; and lest they might seem, by extent of color on the map, to show there a great preponderance of these nationalities the fact that they are suburban and mainly populated by these nationalities was noted in words. In other respects by carrying in the mind the colors representing the different nationalities the distribution of them over the city is seen at a glance.

To show the actual as well as the relative amount of each nationality the statistical diagram at the bottom was prepared. A surprising fact thus revealed is the preponderance of Germans. The map itself gives the idea that New York is pre-eminently an Irish city, but it should be noticed that the Germans like the Italians, Russians and Poles, Hungarians and Bohemians and French collect in districts, while the Irish and natives have spread over the whole city. Now by comparing map 1 (the one of densities) with this it is seen that the dense districts are almost identical with the German quarters, thus accounting for the large number of Germans. The above shows what an erroneous idea of numbers the nationality map by itself can give, and how necessary maps 1 and 2 are to each other.

The French quarter near to South and Washington squares is remarkable in that it is also a negro quarter, giving evidence of a lack of race prejudice characteristic of the Gallic race. The other French quarter on and west of Sixth avenue between Eighteenth and Thirty-first streets is also a district where negroes appear. In this quarter there are not enough French to appear in two-thirds of the populations of the districts, but such individuality have they that it is known only as a French quarter and is, therefore, expressed by the conventional sign of a white

circle. The same may be said of the Chinese quarter in the Sixth ward. There are very few Chinese in the city and there where they are most numerous they do not appear in two-thirds of the population. Yet their individuality has so stamped itself on the neighborhood that it was decided to represent the quarter by another white circle.

This map, it is thought, shows in the best way the most prominent nationalities existing in the city, and their distribution. It is however—and the same may be said of the density map—the first step in this direction and in the light of later work may be made to appear crude. That more work in the same line will be done in the future, perhaps with greater detail, seems probable from the interesting facts by such means made apparent.

Maps 3 to 6.

Maps 3, 4, 5 and 6, represent the density of the population by wards in 1860, 1870, 1880 and 1890. They comprise a series showing the growth of the population; its shifting from one part of the city to another, and particularly the enormous growth in the Sixth, Seventh, Tenth, Eleventh, Twelfth, Thirteenth and Seventeenth Wards.

The data which made these maps possible were taken from the census reports and from the city board of health report of 1893. The population of the wards from the former, their acreage from the latter. (See table.)

The maps are like map 1 in that they can not show minute variations in densities. For such information Table II must be consulted.

This is the largest and most elaborate series of the kind possible. The largest because previous to 1860 the ward boundaries were different. The most elaborate because the smallest divisions whose population and area are known are employed, namely, wards, sanitary districts being unknown before 1890. In order to prevent statistical confusion in the future, it is to be hoped that any change hereafter in the size of wards and sanitary districts may be only by subdivision.

In preparing the maps of this report the committee received invaluable assistance from Dr. Roger Sherman Tracy, of the Board of Health.

FREDERICK E. PIERCE.

TABLE I.

Wards, Sanitary Districts; their Boundaries and Predominating Characteristics (taken from the Annual Report of New York City Board of Health); also Population for 1890 and Acreage (taken from Report on Vital Statistics of New York and Brooklyn for 1890); also Estimated Population for 1894 and Density of Population per acre (calculations of F. E. Pierce for Tenement-House Committee).

1.	2.	3.	4.	5.	6.	7.	8.
WARD.	District	Boundaries.	Predominating characteristic.	Population, 1890.*	Estimated population, 1894.†	Acreage.	Density per acre.
First.....	.....	South of Liberty street and Maiden lane.....	.....	11,122	14,369	264	54.4
A.....	A	West of Broadway and State street.....	Made land.....	8,129	10,503	83	126.5
B.....	B	East of Broadway and State street.....	Made land.....	2,521	3,257	104	31.3
C.....	C	Governor's, Bedloe's and Ellis islands.....	.....	472	609	77	.....
Second.....	.....	Between Liberty street and Maiden lane on the south, and Spruce street, Ferry street and Peck slip on the north, east of Broadway and Park row.....	.....	929	1,302	76	15.8
Third.....	.....	Between Liberty and Reade streets, west of Broadway.....	Business; made land.....	3,765	4,864	102	47.6
Fourth.....	.....	Between Spruce street, Ferry street and Peck slip on the southwest, and Catharine street on the northeast, southerly of Park row.....	.....	17,909	23,006	82	280.5
A.....	A	South of New Chambers street and James slip.....	Made land.....	7,183	9,280	47	197.5
B.....	B	North of New Chambers street and James slip.....	Marsh land; Italians.....	10,626	13,726	35	392.1
Fifth.....	.....	Reade to Canal street, west of Broadway.....	.....	12,385	16,000	162	98.7
A.....	A	West of Hudson street.....	Marsh land.....	7,259	9,378	80	117.2
B.....	B	East of Hudson street.....	Marsh land.....	5,126	6,622	82	80.7
Sixth.....	.....	Below Canal street, between Bowery, Park row and Broadway.....	.....	23,119	29,868	100	298.7
A.....	A	West of Centre street.....	Business.....	1,957	2,528	51	49.5
B.....	B	Between Centre and Baxter streets.....	Made land; Italians, Jews.....	6,497	8,497	23	369.4
C.....	C	East of Baxter street.....	Italians, Chinese.....	14,586	18,843	26	724.7

Seventh	A B C D	Between Catharine and Grand streets, Division street and East river	57,366	74,110	202	366.8
		Between Catharine and Jefferson streets, south of Monroe street	9,959	12,882	47	278.6
		Between Jefferson and Grand streets, south of Monroe street	11,420	14,753	59	250.1
		Between Catharine and Jefferson streets, north of Monroe street	22,484	23,049	50	580.9
Eighth	A B C	Between Jefferson and Grand streets, north of Monroe street	13,503	17,446	46	379.3
		Between Canal and Houston streets, west of Broadway, West of Varick street	31,220	40,333	170	237.3
		East of Varick street, south of Spring street	10,872	14,045	57	244.4
		East of Varick street, north of Spring street	8,520	11,005	57	193.1
Ninth	A B C D	French, Italians	11,838	15,283	55	278.3
		Between Houston and Fourteenth streets, west of Sixth avenue, Carmine st., Bleecker st., Cottage place	54,425	70,308	316	222.5
		West of Hudson street, below West Eleventh street	9,137	11,503	68	173.6
		East of Hudson street, below Charles street and Greenwich avenue	21,230	27,427	79	347.2
Tenth	A B C D	West of Hudson street, above West Eleventh street	10,013	12,935	89	145.3
		East of Hudson street, above Charles street and Greenwich avenue	14,045	18,143	80	226.8
		Between Division and Rivington streets, Norfolk street and Bowery	57,596	74,401	106	701.9
		South of Grand street	30,490	39,397	52	757.4
Eleventh	A B C D	North of Grand street	27,106	35,014	54	643.4
		Between Rivington and Fourteenth streets, east of Avenue B and Clinton street	75,426	97,435	218	446.9
		Between Avenues B and D, south of Second street	24,485	31,564	32	986.4
		Between Avenues B and D, Second and Eighth streets	19,786	25,558	50	511.2
Twelfth	A B C D	Between Rivington and Eighth sts., east of Avenue D	12,694	16,399	52	315.4
		Between Eighth and Fourteenth sts., east of Avenue B	18,512	23,914	84	284.7
		Manhattan Island, north of Eighty-sixth street	245,046	316,529	5,394	58.7
		West Eighty-sixth to Ninety-fourth street	5,107	6,596	176	37.4
	A B C	Between Eighty-sixth and Ninety-fifth streets, Fifth and Third avenues	13,345	17,241	102	169.0
		Between Eighty-sixth and Ninety-fifth streets, Third and First avenues	11,936	15,490	72	214.2
		Federal census, June 1, 1890.				
		† Board of Health estimate for July 1, 1894.				

* Federal census, June 1, 1890.

† Board of Health estimate for July 1, 1894.

TABLE I — (Continued).

1.	2.	3.	4.	5.	6.	7.	8.
WARD.	District.	Boundaries.	Predominating characteristics.	Population, 1890.*	Estimated population, 1894.†	Acreage.	Density per acre.
Twelfth	D	Between Eighty-sixth and Ninety-fifth streets, east of First avenue.....	Marsh land.....	7,071	9,043	66	137.0
	E	Between West Ninety-fourth and One Hundred and Second streets.....	.....	10,648	13,756	155	88.7
	F	Between Ninety-fifth and One Hundred and Fifth sts., Fifth and Third avenues.....	.....	8,433	10,892	112	97.3
	G	Between Ninety-fifth and One Hundred and Fifth sts. east of Third avenue.....	.....	17,876	23,052	119	194.0
	H	Between West One Hundred and Second and One Hundred and Tenth streets.....	Marsh land; gas houses.....	6,669	8,614	155	55.6
	I	Between East One Hundred and Fifth and One Hundred and Tenth streets.....	.....	23,368	30,175	126	239.5
	K	Between One Hundred and Tenth and One Hundred and Twentieth streets, west of Seventh avenue.....	Marsh land.....	4,700	6,071	240	25.3
	L	Between One Hundred and Tenth and One Hundred and Twentieth streets, Seventh and Fourth avenues.....	Suburban.....	7,471	9,655	166	58.1
	M	Between One Hundred and Tenth and One Hundred and Twentieth streets, east of Fourth avenue.....	.....	39,520	51,030	214	238.4
	N	Between One Hundred and Twentieth and One Hundred and Thirtieth streets, west of Fifth avenue.....	Gas houses; Italians.....	25,744	33,258	364	91.4
	O	Between One Hundred and Twentieth and One Hundred and Thirtieth streets, east of Fifth avenue.....	Suburban.....	27,857	35,985	206	174.7
	P	Between One Hundred and Thirtieth and One Hundred and Fortieth streets, west of Eighth avenue.....	.....	4,891	6,314	237	26.6
	R	Between One Hundred and Thirtieth and One Hundred and Fortieth streets, east of Eighth avenue.....	.....	11,393	14,633	241	60.7
	S	North of One Hundred and Fortieth street.....	Suburban.....	16,510	21,327	2,343	9.1
	A B	Islands in East river, opposite Twelfth ward.....	.....	2,653	3,427	300	11.4
Thirteenth .....	.....	Between Division, Grand and Rivington streets, east of Norfolk street.....	.....	45,884	59,267	109	543.7
	A	West of Willett street.....	.....	27,064	35,733	62	697.3
	B	East of Willett street.....	.....	18,220	23,534	57	412.9
Fourteenth .....	.....	Between Canal and Houston streets, Broadway and Bowery.....	.....	28,094	36,292	102	355.8

Fifteenth	A	West of Mulberry street	Italians.	9,181	11,859	55	215.6
	B	East of Mulberry street	Italians.	18,913	24,436	47	519.6
		Houston to Fourteenth st., between Fourth avenue and the Bowery on the east, and Sixth avenue, Carmine and Bleeker streets, and Cottage place on the west..		25,399	32,811	229	143.8
	A	West of Wooster street, south of Fourth street.	Italians, French, negroes.	9,671	12,494	37	337.7
Sixteenth	B	East of Wooster street, south of Fourth street.	French	4,759	6,148	48	126.1
	C	West of University place, north of Fourth street.	Business.	7,081	9,147	81	113.9
	D	East of University place, north of Fourth street.		3,883	5,022	63	79.7
		Between Fourteenth and Twenty-sixth streets, west of Sixth avenue		49,134	63,468	332	191.3
Seventeenth	A	Between Fourteenth and Twentieth streets, west of Ninth avenue.	Made land; gas-houses.	8,001	10,324	66	156.5
	B	Between Fourteenth and Twentieth streets, east of Ninth avenue.		16,594	21,437	91	235.6
	C	Between Twentieth and Twenty-sixth streets, west of Ninth avenue.	Made land	6,834	8,827	82	107.6
	D	Between Twentieth and Twenty-sixth streets, east of Ninth avenue.		17,705	22,870	93	245.9
Eighteenth		Between Rivington and Fourteenth streets, Fourth avenue and Bowery, and Avenue B and Clinton street		103,158	138,257	290	449.5
	A	Between Rivington and Fourth sts., west of First ave.	Germans	17,778	22,935	51	450.3
	B	Between Rivington and Fourth sts., east of First ave.	Germans	30,100	38,883	54	720.0
	C	Between Fourth and Ninth sts., west of First avenue.	Germans	11,772	15,208	43	353.7
Eighteenth	D	Between Fourth and Ninth sts., east of First avenue.	Germans	15,651	20,218	41	493.2
	E	Between Ninth and Fourteenth sts., west of First ave.		10,347	14,140	59	239.7
	F	Between Ninth and Fourteenth sts., east of First ave.	Germans	16,910	21,843	42	520.9
		Fourteenth to Twenty-sixth sts., east of Sixth avenue.		63,370	81,734	431	189.6
Eighteenth	A	Between Fourteenth and Twentieth streets, Sixth and Fourth avenues		3,864	4,991	66	75.6
	B	Between Fourteenth and Twentieth streets, Fourth and First avenues		11,089	14,324	83	172.5
	C	Between Fourteenth and Twenty-sixth streets, east of First avenue.	Made land; gas houses.	24,445	31,580	129	244.8
	D	Between Twentieth and Twenty-sixth streets, Sixth and Fourth avenues		7,024	9,074	71	127.8
Eighteenth	E	Between Twentieth and Twenty-sixth streets, Fourth and First avenues		16,818	21,765	82	265.5

† Board of health estimate for July 1, 1894.

* Federal census, 1890.

TABLE I — (Continued).

1.	2.	3.	4.	5.	6.	7.	8.
WARD.	District.	Boundaries.	Predominating characteristics.	Population, 1890.*	Estimated population, 1894.†	Acreage.	Density per acre.
Nineteenth	.....	Between Fortieth and Eighty-sixth streets, east of Sixth avenue.....	.....	234,946	303,398	1,455	208.5
	A	Between Fortieth and Fiftieth streets, Sixth and Fourth avenues.....	Fine residences.....	7,275	9,398	117	80.3
	B	Between Fortieth and Fiftieth streets, Fourth and Second avenues.....	.....	19,699	25,446	99	257.0
	C	Between Fortieth and Fiftieth streets, east of Second avenue.....	Slaughter-houses.....	15,550	20,089	81	248.0
	D	Between Fiftieth and Fifty-ninth streets, Sixth and Fourth avenues.....	.....	6,815	8,804	100	88.0
	E	Between Fiftieth and Fifty-ninth streets, Fourth and Second avenues.....	Fine residences.....	17,779	22,192	87	255.1
	F	Between Fiftieth and Fifty-ninth streets, east of Second avenue.....	.....	19,834	25,623	82	312.5
	G	Between Fifty-ninth and Seventieth streets, Fifth and Third avenues.....	.....	11,533	14,899	134	111.2
	H	Between Fifty-ninth and Seventieth streets, Third and First avenues.....	Fine residences.....	19,117	24,696	90	274.4
	I	Between Fifty-ninth and Seventieth streets, east of First avenue.....	.....	6,471	8,361	77	108.6
	K	Between Seventieth and Seventy-sixth streets, Fifth and Third avenues.....	Fine residences.....	7,275	9,397	69	136.2
	L	Between Seventieth and Seventy-sixth streets, Third and First avenues.....	.....	19,978	25,810	49	526.7
	M	Between Seventieth and Seventy-sixth streets, east of First avenue.....	.....	10,571	13,656	52	262.6
	N	Between Seventy-sixth and Eighty-sixth streets, Fifth and Third avenues.....	Fine residences.....	14,421	18,631	114	163.4
	O	Between Seventy-sixth and Eighty-sixth streets, Third and First avenues.....	.....	28,477	36,787	84	438.7
	P	Between Seventy-sixth and Eighty-sixth streets, east of First avenue.....	.....	23,741	20,673	100	206.7
	R	Blackwell's Island.....	.....	6,900	8,926	120	74.4

TABLE I — (Concluded).

1.	2.	3.	4.	5.	6.	7.	8.
WARD.	District.	Boundaries.	Predominating characteristics.	Population, 1890.*	Estimated population, 1894.†	Acreage.	Density per acre.
Twenty-second.	E	Between Fifth and Fifty-ninth streets, Tenth and Eighth avenues.....	.....	23,866	30,354	92	335.3
	F	Between Fifth and Fifty-ninth streets, Eighth and Sixth avenues.....	.....	9,844	12,719	92	138.2
	G	Between Fifty-seventh and Sixty-fourth streets, west of Tenth avenue.....	Naughtier houses.....	10,237	13,223	80	165.3
	H	Between Sixty-fourth and Seventy-fourth streets, west of Tenth avenue.....	.....	6,457	8,340	112	74.4
	I	Between Fifty-ninth and Sixty-eighth streets, Tenth and Eighth avenues.....	.....	10,467	13,521	90	150.2
	K	Between Sixty-eighth and Seventy-seventh streets, Tenth and Eighth avenues.....	.....	4,853	6,263	94	66.7
	L	Between Seventy-fourth and Eighty-sixth streets, west of Tenth avenue.....	.....	2,343	3,026	131	23.1
	M	Between Seventy-seventh and Eighty-sixth streets, Tenth and Eighth avenues.....	.....	4,638	5,978	79	75.7
Twenty-third.....	.....	North of Harlem river, below the line described below.....	Suburban.....	53,948	69,646	4,241	16.4
Twenty-fourth.....	.....	North of Harlem river, above a line from High bridge running midway between One Hundred and Seventieth and One Hundred and Seventy-first streets.....	Suburban.....	20,137	26,014	8,474	3.0
				1,515,301	1,957,452	.....	.....

* Federal census, June 1, 1890.

† Board of health estimate for July 1, 1894.

TABLE II.

Population and Density of Wards of New York city in 1860, 1870, 1880 and 1890 (United States Census Reports).

WARD.	Year.	Population.	Acreage.*	Density.	WARD.	Year.	Population.	Acreage.	Density.
1st	1860	18,148	154	117.8	13th	1860	32,917	107	307.6
.....	1870	14,463	154	93.9	.....	1870	33,364	107	311.8
.....	1880	17,939	154	116.5	.....	1880	37,797	107	353.3
.....	1890	11,123	154	72.2	.....	1890	45,884	107	428.8
2d	1860	2,506	81	30.9	14th	1860	28,080	96	292.5
.....	1870	1,312	81	16.2	.....	1870	26,436	96	275.4
.....	1880	1,608	81	19.8	.....	1880	30,171	96	314.3
.....	1890	929	81	11.4	.....	1890	28,094	96	292.6
3d	1860	3,757	95	39.5	15th	1860	27,587	198	139.3
.....	1870	3,715	95	39.1	.....	1870	27,587	198	139.3
.....	1880	3,583	95	37.7	.....	1880	31,882	198	161.0
.....	1890	3,765	95	39.6	.....	1890	25,399	198	128.3
4th	1860	21,924	83	264.9	16th	1860	45,176	349	129.4
.....	1870	23,748	83	286.1	.....	1870	48,259	349	138.6
.....	1880	20,996	83	252.9	.....	1880	52,183	349	149.5
.....	1890	17,809	83	214.5	.....	1890	49,134	349	140.8
5th	1860	22,337	168	132.9	17th	1860	72,953	331	220.4
.....	1870	17,160	168	102.1	.....	1870	95,865	331	288.1
.....	1880	15,845	168	94.3	.....	1880	104,837	331	316.7
.....	1890	12,385	168	73.7	.....	1890	103,158	331	311.6
6th	1860	26,696	86	310.4	18th	1860	57,462	450	127.7
.....	1870	21,153	86	246.0	.....	1870	59,593	450	132.4
.....	1880	20,196	86	233.6	.....	1880	66,611	450	148.0
.....	1890	23,119	86	268.8	.....	1890	63,270	450	140.6
7th	1860	39,982	198	201.9	19th	1860	32,795	1,481	22.1
.....	1870	44,818	198	226.4	.....	1870	86,090	1,481	58.1
.....	1880	50,068	198	252.9	.....	1880	158,191	1,481	106.8
.....	1890	37,366	198	188.7	.....	1890	224,946	1,481	158.5
8th	1860	39,406	183	215.3	20th	1860	67,519	444	152.0
.....	1870	34,913	183	190.8	.....	1870	75,407	444	169.9
.....	1880	35,879	183	196.0	.....	1880	86,015	444	193.7
.....	1890	31,220	183	170.6	.....	1890	84,327	444	189.9
9th	1860	44,385	322	137.8	21st	1860	49,017	411	119.5
.....	1870	47,609	322	147.8	.....	1870	56,703	411	137.9
.....	1880	54,596	322	169.5	.....	1880	68,536	411	161.8
.....	1890	54,425	322	169.0	.....	1890	69,019	411	165.3
10th	1860	29,004	110	272.7	22d	1860	81,725	1,529	40.3
.....	1870	41,431	110	376.6	.....	1870	71,349	1,529	46.6
.....	1880	47,554	110	432.3	.....	1880	111,606	1,529	72.9
.....	1890	57,596	110	523.6	.....	1890	153,877	1,529	100.6
11th	1860	59,571	196	303.9	23d	1860	.....	4,267	.....
.....	1870	64,230	196	327.7	.....	1870	.....	4,267	.....
.....	1880	68,778	196	350.9	.....	1880	28,338	4,267	6.6
.....	1890	75,426	196	384.3	.....	1890	53,948	4,267	12.6
12th	1860	80,551	5,504	5.5	24th	1860	.....	8,050	.....
.....	1870	47,697	5,504	8.6	.....	1870	.....	8,050	.....
.....	1880	81,800	5,504	14.8	.....	1880	13,288	8,050	1.6
.....	1890	245,046	5,504	44.5	.....	1890	20,137	8,050	2.5

* Taken from New York city Health Reports.

SUPPLEMENT No. 15.

Health Statistics Referred to in Report: "Local Causes Affecting the Death-Rate in New York."

TABLE A.
NUMBER OF HOUSES AND NUMBER OF TENANTS TO A HOUSE BY WARDS.

WARD.	NUMBER OF HOUSES.			Single tenements on lot	Total lots with front and rear tenements.	NUMBER OF TENANTS TO EACH HOUSE.			TENANTS TO EACH HOUSE IN FRONT TENEMENTS.		
	Front.	Rear.	Total.			Over five years.	Under five years.	Total.	Over five years.	Under five years.	Total.
First	196	14	210	182	14	32.8	3.2	36	33.2	3.2	36.4
Second	8	....	8	8	.....	20.5	1.4	21.9	20.5	1.4	21.9
Third	46	2	48	44	2	30	2.2	32.2	30.3	2.3	32.6
Fourth	387	86	473	301	86	27.4	4.1	31.5	30.7	4.1	34.8
Fifth	234	4	238	230	4	25.4	3.7	29.1	25.4	3.7	29.1
Sixth	383	139	522	244	139	33.9	4.9	38.8	36.2	5	41.2
Seventh	1,416	94	1,510	1,322	94	36.2	7.2	43.4	36.9	7.4	44.3
Eighth	724	102	826	622	102	21.1	3.5	24.6	21.6	3.6	25.2
Ninth	1,427	92	1,519	1,335	92	24.5	2.9	27.4	25.1	2.9	28
Tenth	1,038	158	1,196	880	158	47.7	9.5	57.2	50.3	10	60.3
Eleventh	1,952	249	2,201	1,703	249	29.5	5.8	35.3	30.6	6	36.6
Twelfth	7,685	17	7,702	7,668	17	28.9	3.9	32.8	28.9	3.9	32.8
Thirteenth	922	120	1,042	802	120	34.9	6.9	41.8	36.6	7.3	43.9
Fourteenth	482	154	636	328	154	34	6.5	40.5	36.1	6.6	42.7
Fifteenth	328	31	359	297	31	23.2	4.3	27.5	23.4	4.3	27.7
Sixteenth	1,037	81	1,118	956	81	27	3	30	27.9	3.2	31.1

Seventeenth	2,459	311	2,770	2,148	311	31.8	5.4	37.2	33.1	5.6	38.7
Eighteenth	1,245	76	1,321	1,169	76	26.6	3.6	30.2	27.3	3.7	31
Nineteenth	5,385	65	5,450	5,320	65	31.4	4.7	36.1	31.6	4.7	36.3
Twentieth	2,489	341	2,830	2,148	341	25.6	2.8	28.4	26.9	3	29.9
Twenty-first	1,418	40	1,458	1,378	40	27.2	5.4	32.6	27.3	5.4	32.7
Twenty-second	3,978	168	4,146	3,810	168	29.3	4.6	33.9	30	4.7	34.7
Twenty-third	1,456	2	1,458	1,454	2	19.3	3.3	22.6	19.3	3.3	22.6
Twenty-fourth	97	....	97	97	.....	10.4	2.3	12.7	10.4	2.3	12.7
Total	36,792	2,346	39,138	34,446	2,346	29.4	4.6	34	30	4.7	34.7

TABLE A — (Continued).

WARD.	TENANTS TO EACH HOUSE IN REAR TENEMENTS.			TENANTS TO EACH HOUSE IN SINGLE TENEMENTS ON LOT.			TENANTS TO EACH LOT WHERE THERE ARE FRONT AND REAR TENEMENTS ON THE SAME LOT.		
	Over five years.	Under five years.	Total.	Over five years.	Under five years.	Total.	Over five years.	Under five years.	Total.
First	27.9	2.7	30.6	33.1	3.2	36.3	61.7	6.3	68
Second .....	.....	.....	.....	20.5	1.4	21.9	.....	.....	.....
Third	24	.5	24.5	29.9	2.3	32.2	64	2.5	66.5
Fourth	12.3	4.4	16.7	30.2	4.3	34.5	45	7.6	52.6
Fifth	25	3	28	25.4	3.7	29.1	53.2	7.8	61
Sixth	27.5	4.5	32	39.3	5.1	44.4	58.4	9.4	67.8
Seventh	24.5	5.5	30	37.3	7.4	44.7	56	12.5	68.5
Eighth	17.4	3.5	20.9	22.2	3.7	25.9	35.3	6.4	41.7
Ninth	16.1	1.9	18	25.6	3.1	28.7	32.8	3.7	36.5
Tenth	30.5	6.3	36.8	51.2	10.2	61.4	76	15.1	91.1
Eleventh	20.9	3.9	24.8	31	6.1	37.1	48.9	9.5	58.4
Twelfth	12.3	2.9	15.2	28.9	3.9	32.8	31.6	6.9	38.5
Thirteenth	21.9	3.9	25.8	38.4	7.7	46.1	46.6	8.4	55
Fourteenth	31.3	2.1	33.4	37	6.6	43.6	61.6	12.7	74.3
Fifteenth	21.3	4.7	26	23.5	4.3	27.8	43.7	8.9	52.6
Sixteenth	14.8	1.7	16.5	28.8	3.3	32.1	32.4	3.6	36
Seventeenth	21.5	4.2	25.7	33.8	5.8	39.6	49.5	8.9	58.4
Eighteenth	14.7	2.4	17.1	27.6	3.7	31.3	38.8	5.3	44.1
Nineteenth	16.5	3	19.5	31.6	4.8	36.4	41.8	6.9	48.7
Twentieth	15.6	1.9	17.5	27.7	3.1	30.8	37.7	4.5	42.2

Twenty-first	24.2	5.6	29.8	27.4	5.4	32.8	47.4	10.4	57.8
Twenty-second	13.4	2.2	15.6	30.2	4.8	35	37.1	5.6	42.7
Twenty-third	20	2	22	19.3	3.3	22.6	35	5.5	40.5
Twenty-fourth .....	.....	.....	.....	10.4	2.3	12.7	.....	.....	.....
Total	20.2	3.7	23.9	30.2	4.7	34.9	47.3	8.2	55.5

TABLE B.
GENERAL DEATH-RATES IN TENEMENTS BY WARDS, ARRANGED FROM MAXIMUM TO MINIMUM.

WARD.	General.	WARD.	Over five years.	WARD.	Under five years.	WARD.	Diarrhea.
Fourteenth	35.12	First	24.52	Second	181.82	Fifth	2.60
Fourth	33.78	Fourth.....	22.39	Fourteenth	122.21	Twenty-third	2.55
First	33.18	Fifth	21.82	First	122.02	Fifteenth	2.53
Fifth	32.60	Eighteenth	20.90	Fourth	108.69	Eighth	2.51
Eighth	31.98	Fifteenth	20.49	Fifth	106.45	Fourteenth	2.25
Eighteenth	29.83	Eight	20.01	Eighth.....	103.21	Eighteenth	2.23
Fifteenth	29.32	Fourteenth	18.51	Sixth	101.50	Twelfth	2.11
Second	28.57	Ninth	18.38	Eighteenth	96.36	Fourth.....	2.01
Sixth	27.36	Second	18.29	Ninth	95.68	Twentieth.....	1.99
Ninth	26.56	Twenty-first. . .	17.64	Twentieth. . .	95.56	Ninth	1.92
Twentieth	24.63	Sixteenth	16.85	Thirteenth	85.53	Twenty-second ..	1.91
Twenty-first.....	23.96	Sixth	16.72	Twelfth	82.73	Eleventh	1.87
Thirteenth	23.59	Twentieth	16.68	Sixteenth	77.09	Nineteenth	1.85
Sixteenth	23.02	Twenty-second ..	14.78	Fifteenth	76.93	Sixteenth	1.82
Eleventh	22.84	Seventh.....	14.20	Twenty-second ..	73.50	Twenty-first.....	1.77
Twenty-second ..	22.78	Seventeenth	14.14	Eleventh.....	72.87	Tenth	1.65
Seventh.....	22.36	Third	13.17	Nineteenth	70.82	Seventeenth	1.59
Seventeenth	21.64	Eleventh.....	13.10	Twenty-third	65.38	Sixth	1.58
Twelfth	20.69	Nineteenth	12.78	Seventeenth	65.03	Seventh	1.57
Nineteenth	20.33	Twelfth	12.37	Seventh.....	62.94	Thirteenth	1.49
Twenty-third	18.39	Thirteenth	11.42	Tenth	58.32	First	1.32

Tenth	17.14	Twenty-third	10.49	Third.....	56.60	Second.....	.....
Third	16.15	Tenth	8.94	Twenty-first	55.86	Third .....	.....
Twenty-fourth....	7.30	Twenty-fourth....	1.98	Twenty-fourth ..	31.53	Twenty-fourth ..	.....
General average for entire city,	22.75	General average for entire city,	14.31	General average for entire city,	76.64	General average for entire city,	1.90

TABLE B — (Continued).

WARD.	Diphtheria and croup.	WARD.	Phthisis.	WARD.	Pneumonia.
Second..	5.71	Second.....	11.43	Fourth.....	6.57
Twenty-fourth ..	3.24	First.....	4.49	Fourteenth ..	6.10
Eighth.....	2.41	Eighth.....	4.19	Fifth	6.06
Thirteenth ..	2.07	Fifteenth ..	4.14	First	5.95
Ninth.....	1.90	Sixth	3.90	Second.....	5.71
Fifth	1.88	Fourteenth ..	3.85	Sixth	4.74
Nineteenth ..	1.88	Fourth.....	3.82	Thirteenth ..	4.70
Twelfth.....	1.86	Fifth	3.75	Third.....	4.52
Fourteenth ..	1.63	Ninth	3.69	Seventh	4.45
Fifteenth.....	1.62	Eighth.....	3.59	Eighth.....	4.22
Sixth	1.43	Twentieth.....	3.42	Eighteenth ..	4.21
Seventeenth ..	1.46	Sixteenth ..	3.13	Eleventh	3.93
Twenty-first ..	1.43	Twenty-first ..	2.75	Twenty-first ..	3.49
Eleventh	1.39	Seventeenth ..	2.49	Tenth	3.39
First.....	1.32	Twenty-second ..	2.40	Twentieth.....	3.37
Twenty-third ..	1.30	Seventh	2.32	Sixteenth	3.28
Third.....	1.29	Nineteenth ..	2.29	Twenty-second ..	3.28
Twenty-second ..	1.04	Eleventh	2.19	Ninth.....	3.14
Eighteenth ..	1.03	Twelfth.....	2.05	Fifteenth	3.13
Twentieth ..	1.03	Thirteenth ..	2.00	Twelfth.....	2.94
Tenth.....	1.01	Tenth	1.81	Seventeenth ..	2.92

Sixteenth.....	1.01	Twenty-third	1.70	Nineteenth	2.81
Seventh .....	.90	Twenty-fourth .....	.81	Twenty-third	1.91
Fourth.....	.87	Third.....	.65	Twenty-fourth .....	.81
General average for entire city	1.49	General average for entire city	2.55	General average for entire city	3.43

TABLE C.

DEATH-RATES FROM CERTAIN DISEASES, BY WARDS, ON LOTS WITH FRONT AND REAR TENEMENTS ON THE SAME LOT—
ARRANGED FROM MAXIMUM TO MINIMUM.

WARD.	Diarrhea.	WARD.	Diphtheria and croup.	WARD.	Phthisis.	WARD.	Pneumonia.
Twenty-second ...	3.91	Eighth	2.59	First	11.55	Twenty-third ...	12.34
Eighteenth	3.88	Ninth	2.08	Ninth	5.96	Twelfth	12.23
Eighth	3.53	Twenty-second ...	1.95	Fifteenth	5.51	First	11.55
First	3.15	Nineteenth	1.89	Twelfth	4.59	Fourteenth	7.08
Fourth	3.10	Eighteenth	1.79	Twenty-second ..	4.32	Fourth	6.85
Twenty-first	2.59	Fourteenth	1.75	Twentieth	4.03	Twenty-first	6.48
Sixteenth	2.40	Twenty-first ...	1.73	Fourteenth	3.93	Seventh	5.44
Twentieth	2.36	Sixteenth	1.71	Eighteenth	3.58	Thirteenth	5.00
Seventeenth	2.09	Thirteenth	1.67	Seventh	3.42	Eighth	4.70
Thirteenth	1.97	Seventeenth	1.49	Sixteenth	3.42	Eleventh	4.67
Fourteenth	1.92	Sixth	1.38	Fourth	3.32	Eighteenth	4.47
Tenth	1.88	Seventh	1.24	Nineteenth	3.16	Sixth	4.46
Ninth	1.79	Twentieth	1.18	Seventeenth.	2.92	Nineteenth	4.42
Eleventh	1.79	Fourth	1.11	Eighth	2.82	Twenty-second ..	4.32
Sixth	1.59	First	1.05	Sixth	2.76	Sixteenth	4.11
Nineteenth	1.58	Tenth .....	.97	Eleventh	2.27	Fifth	4.10
Twelfth	1.53	Eleventh .....	.96	Thirteenth	1.82	Seventeenth	3.91
Seventh	1.40	Fifteenth .....	.61	Tenth	1.81	Twentieth	3.82
Fifteenth	1.22	Second .....	.....	Twenty-first ...	1.73	Fifteenth	3.67
Second .....	.....	Third .....	.....	Second .....	.....	Tenth	3.33

TABLE C — (Continued).
DEATH-RATES FROM THE SAME DISEASES — ALL TENEMENTS INCLUDED.

WARD.	Diarrhea.	WARD.	Diphtheria and croup.	WARD.	Phthisis.	WARD.	Pneumonia.
Fifth	2.60	Second.....	5.71	Second.....	11.43	Fourth.....	6.57
Twenty-third	2.55	Twenty-fourth...	3.24	First	4.49	Fourteenth	6.10
Fifteenth	2.53	Eighth.....	2.41	Eighteenth.....	4.19	Fifth	6.06
Eighth.....	2.51	Thirteenth	2.07	Fifteenth	4.14	First.....	5.95
Fourteenth.....	2.25	Ninth.....	1.90	Sixth	3.90	Second.....	5.71
Eighteenth.....	2.23	Fifth.....	1.88	Fourteenth.....	3.85	Sixth	4.74
Twelfth	2.11	Nineteenth	1.88	Fourth.....	3.82	Thirteenth	4.70
Fourth.....	2.01	Twelfth.....	1.86	Fifth.....	3.75	Third.....	4.52
Twenty-ninth.....	1.99	Fourteenth	1.63	Ninth.....	3.69	Seventh.....	4.45
Nineteenth.....	1.92	Fifteenth	1.62	Eighth.....	3.59	Eighth.....	4.22
Eleventh.....	1.91	Sixth	1.48	Twentieth.....	3.42	Eighteenth.....	4.21
Twenty-second	1.87	Seventeenth	1.46	Sixteenth	3.13	Eleventh.....	3.93
Eleventh.....	1.85	Twenty-first.....	1.43	Twenty-first.....	2.75	Twenty-first	3.49
Nineteenth	1.82	Eleventh.....	1.39	Seventeenth	2.49	Tenth	3.39
Sixteenth	1.77	First	1.32	Twenty-second...	2.40	Twentieth.....	3.37
Twenty-first.....	1.65	Twenty-third	1.30	Seventh.....	2.32	Sixteenth.....	3.28
Tenth.....	1.59	Third.....	1.29	Nineteenth	2.29	Twenty-second...	3.28
Seventeenth	1.58	Twenty-second...	1.04	Eleventh.....	2.19	Ninth.....	3.14
Sixth	1.57	Eighteenth	1.03	Twelfth.....	2.05	Fifteenth.....	3.13
Seventh.....	1.49	Twentieth.....	1.03	Thirteenth	2.00	Twelfth.....	2.94
Thirteenth	1.32	Tenth	1.01	Tenth.....	1.81	Seventeenth.....	2.92
First .....	.....	Sixteenth	1.01	Twenty-third	1.70	Nineteenth.....	2.81
Twenty-fourth.....	.....	Seventh.....	.90	Twenty-fourth .....	.81	Twenty-third	1.91
Second.....	.....	Fourth.....	.87	Third.....	.65	Twenty-fourth...	.81
Third .....	.....					
General death-rate for entire city..	1.90	General average	1.49	General average	2.55	General average	3.42

TABLE D.

DEATH-RATES PER 1,000 IN TENEMENTS IN CERTAIN SPECIAL LOCALITIES.

City.....	Ward.	Popula- tion.	General.	Under five years of age	Diarrhea.	Diphtheria and croup.	Pathisia.	Pneumonia.
Sanitary Districts:	..	.....	22.75	76.64	1.90	1.49	2.55	3.42
Sanitary District A.....	1	6,707	35.93	130.30	1.49	1.19	4.77	6.41
Sanitary District I.....	22	13,377	15.25	61.43	1.79	.67	1.72	2.24
Sanitary District A.....	4	5,515	36.08	113.58	2.18	.36	4.53	8.52
Sanitary District M.....	22	6,157	10.07	38.96	.33	.16	.81	1.79
Sanitary District B.....	4	9,405	32.43	106.62	1.91	1.17	3.40	5.42
Sanitary District C.....	7	28,370	18.51	53.85	1.16	.99	1.76	3.49
Sanitary District A.....	14	7,712	33.46	127.72	2.07	1.56	3.37	6.74
Sanitary District A.....	12	6,643	12.33	47.62	.45	.75	1.65	1.51
Sanitary District B.....	14	18,026	35.84	120.02	2.33	1.66	4.05	5.82
Sanitary District E.....	12	14,262	21.94	91.39	1.89	1.89	2.59	1.96
Sanitary District B.....	6	5,420	24.91	105.75	1.11	1.84	2.03	4.24
Sanitary District H.....	12	8,512	16.09	66.82	1.41	.94	1.64	3.76
Sanitary District C.....	6	13,641	28.66	101.63	1.76	1.47	4.69	4.84
Sanitary District K.....	12	8,089	16.32	55.41	1.61	1.85	1.73	2.84

SUPPLEMENT No. 16.

Letters to the Committee.

Letters from the Chief of the Fire Department.

FIRE DEPARTMENT,
NEW YORK CITY, *June 19, 1894.* }

RICHARD WATSON GILDER, *Esq., Chairman Tenement-House
Commission:*

Dear Sir.—In compliance with your request, I take pleasure in laying before you such facts as I have from time to time noticed, while attending fires in the class of buildings known as tenement-houses, in this city. My observations are entirely those which relate to fires, their extinguishment, and the preservation of life at such fires, as well as on the laws regulating such construction, enacted during the past few years.

As you are aware, the buildings known as tenement-houses are erected mainly with the view of returning a large income for the amount of capital invested. These buildings are erected from time to time under the laws then existing for the construction of buildings in this city. There is no question but that the buildings are erected in compliance with the law, but the law has not until recently made any provision for the protection or preservation of life within those structures in case of fire, and it is only after a fire in one of those tenements where a great loss of life ensues, that any interest whatever is taken for the betterment of the tenement-houses, for the safety of the occupants.

The first notable event which occurred in recent years with the view of protecting life within those buildings in case of fire was the enactment of the fire escape laws, which require that certain buildings intended for more than three families above the first floor shall be provided with proper means of exit as may be directed by the superintendent of building department. This improvement was then followed by the board of health, who, under their rules, require in each building a light shaft as a sanitary measure. This light shaft may, from a sanitary point, be most essential for light and ventilation, but it is one of the most destructive elements within a tenement, in permitting and causing the extension of fire in its ascent from floor to floor

through this light shaft; in fact we class it as a mere flue, and it acts exactly as a flue does, except that it is not confined within a solid wall, the windows being on each side, and directly opposite each other. It is but a matter of a few seconds, when a fire leaps from one of those windows until it crosses to the adjoining building, and if not promptly checked, will spread the fire to every floor within the light shaft in the most inconceivable time.

The next element of danger within this class of buildings is the cellar, divided as it is generally into compartments known as woodhouses, each compartment being assigned to one of the apartments. When a fire takes place in one of these cellars containing from 10 to 30 compartments, all being constructed of wood, and at times being filled with inflammable material, it takes hours to get control of one of those fires, as it has a tendency to make a dense smoke and heat, which invariably passes through the stairway leading from the cellar, and thus charging the main stairway and halls with heat and smoke and necessarily driving the occupants to the front and rear of the building. The occupants, on occasions of this kind, are generally in a state of frenzy, and often on reaching the roof or fire escapes, leap to the street, even in the presence of our men, who may be endeavoring with all the haste possible to reach those unfortunates who are crazed with fright and who are generally as unmanageable in this state as any of the brute creation.

In many instances the hallways have windows on each side, opening on bedrooms, and also transom lights over the doors.

In many cases where a fire occurs in one of those bedrooms, or large rooms, the fire passes out of the windows, transom lights or doors, and into the main hall, and when it reaches the halls and main stairway, it ascends with the rapidity of lightning, till it passes out through the bulkhead on roof, thereby preventing any exit by the main stairway, by the unfortunate occupants, who may be on the level or above the fire. The risk to life is one of the greatest sources of anxiety to this department in combating with fires in this class of buildings, which are located mainly in the Sixth, Seventh, Tenth, Eleventh, Thirteenth and Seventeenth wards. Although this class of buildings are erected in many other sections of the city, yet they are not subject to the numerous fires that the tenements in the above wards, have for years been subject to. The principle of construction is about the same, but there is an element of difference in the nationalities of the occupants residing within the different sections of the city; but it matters not where the tenement is erected, it is full of danger to the occupants in case of fire, which, if not promptly checked, generally results in great destruction to life.

We endeavor to keep our companies equipped with all the life-saving appliances that we can obtain, or that we can conceive of, that would be of the slightest benefit to aid in rescuing life.

We have also an abundant supply of fire-alarm boxes, located in all those districts above mentioned, but notwithstanding this fact, there often occurs, on the occasion of a fire, a loss of life previous to the arrival of the department, and an apparent neglect on the part of someone in not promptly sending for the department.

The building laws of this city have been amended, from time to time, with the view to the betterment of this class of buildings, but I have never been satisfied with the wisdom of enacting laws, that leave the occupants of the tenement entirely unprotected in case of fire.

The occupants of these tenements are generally the poorest of our population, and are compelled in many instances to occupy those miserable apartments in crowded tenements. It has often surprised me that the element of destruction, which has within its power the means of destroying human life, is not more destructive on the occasion of fires in those buildings.

It has been a study for many years, by the the officials of this department as to "the better protection of human life within the common tenements as well as in those buildings known as flats," some of the latter occupying prominent sites on some of our most fashionable avenues, and after many years of agitation the department succeeded eventually in forcing an amendment to the building laws passed in 1892, which requires in tenements of more than four and five stories in height, that the stairs, halls and the first floor, shall be constructed of fire-proof material, with no connection by stairway to the cellar from under the stairway, or in the main hall. This is certainly an innovation, and a great improvement over the laws previously in force, but this law, while a great concession, does not go far enough in our opinion.

There appears to be but one solution, in our minds, of this most important question, "the protection of life within the tenements," and in our opinion, the only remedy is by again amending the Laws of 1892, so that the entire structure shall be fireproof throughout, with the proviso that there shall be no connection between the cellar and the main halls or stairway, and that there shall be no elevator shaft within the stair-hole; that there shall be no transom lights, or windows opening into the halls from any apartment. I think it safe to say that, in a structure of this kind built of fireproof material, that the occupants will have the opportunity of using the main stairway, and that should a fire occur within one of those apartments, there is no possibility of its extension, within a reasonable time, or at least until the arrival of our department.

The cry will be raised in opposition, that this would entail an additional expense in construction, and that it would be taken entirely from the occupants, in the form of increased rent; this no doubt is correct, but the matter of additional rent, where human life is at stake, would not be considered by the occupants.

The fact is generally known at this time, that the difference between the cost of an entirely fireproof, and a nonfireproof structure is so small, that it should not under any circumstances be considered, or classed as an element against the sacrifice of life.

As to the better class of flats, which are in reality only tenements finished a little more elaborately, with a grander scope of architecture, they are, in themselves, as combustible and as dangerous to the occupants as those mentioned previously, and a fire only requires the slightest headway to cause destruction to life and property. These buildings are of the most deceptive nature; many are classed as safe and partially fireproof wherein we, who have had so much experience in extinguishing fires within this class of buildings, know to the contrary, and we would not consider it safe for our own families to live in those grand structures above the second story.

I can not conceive any remedy for the evil now existing, from a fire standpoint, in the great destruction of life within all these classes of tenement and flathouses, other than the one suggested, which will meet with strong opposition from the different interests should legislation be requested. I will do my utmost in the future to aid in amending the present laws, so that ample protection will be given to the poor of this city who are from necessity compelled to occupy the miserable tenements which are classed as places of abode for human life, but in reality they are not fit, in some instances, to be occupied by brutes.

The innovation of the present laws, in requiring partial fireproof construction, is something that we feel proud of; although its good results will not be apparent for some time to come, nevertheless we feel a pride in the fact that we continued the agitation for better laws for the erection of tenement-houses, and were in the end rewarded by the partial fireproof construction, which more than pays for the interest that we have taken in the welfare of that class of our poor, who so rarely have anyone to look after their interests.

Very respectfully,

HUGH BONNER,

Chief of Department.

FIRE DEPARTMENT,
NEW YORK CITY, *December 3, 1894.* }

RICHARD WATSON GILDER, *Esq., Chairman Tenement House Commission:*

Dear Sir.—As a supplement to my statement to you, dated June 12, 1894, I herewith transmit several suggestions, which were not heretofore mentioned in such statement.

First. I would suggest to your committee the necessity of not permitting any connection, by doors, windows or other openings, between the stores of the first floor and the main hall.

Second. To inclose with fireproof material, and doors, the elevator shaft in the cellar, where such are used.

Very respectfully,

HUGH BONNER,

Chief of Department.

**From the President of the Society for Improving the Condition
of the Poor.**

NEW YORK, *June 7, 1894.*

R. W. GILDER, *Esq., Chairman of the Tenement-House Committee:*

My Dear Sir.—The Association for Improving the Condition of the Poor begs to submit to your committee the following recommendations for legislative action relative to the tenement-house life of New York city:

First. We believe it to be eminently desirable that the Legislature should confer upon the board of health specific authority to condemn and destroy dwelling-houses when, in the judgment of that body, it is impossible by alteration or repair to correct their unsanitary features.

In the lower part of New York city, investigation will disclose not a few old houses formerly occupied by single families, but which were many years ago transformed into tenement buildings. In these houses the difficulty of providing for sufficient light and ventilation has been aggravated by the adjacent erection of lofty office buildings. In not a few of such houses the situation is practically irremediable by further alteration, and we believe they should be promptly condemned. There also exist a number of old tenement-houses, with front and back buildings erected under sanitary conditions now prohibited, and in which also structural evils have been increased by the erection in the vicinity of new and larger structures.

Second. We recommend that owners of houses, in which the halls are not sufficiently lighted from without should be compelled to supply in such halls sufficient artificial light. The dark halls encourage both immorality and crime and should not be tolerated.

Third. With the same object in view, we would recommend the extension throughout the most crowded sections of the city of the electric lighting system. We believe the effect of brilliantly lighted streets upon the moral character of tenement-house life would be readily discernible and would meet with the hearty approval of the board of health and the departments of police and fire.

Fourth. We heartily second the proposition advanced by Dr. Tracey, of the board of health, to surround the public school-houses of New York with two or more vacant lots, to be used as playgrounds for the children in lieu of the comparatively dark and even damp playrooms now provided for that purpose. This suggestion seems to us to touch the life of the poor in a manner peculiarly calculated to produce results beneficial to both health and character.

Fifth. We recommend an increase in the force of the sanitary police. This force numbered 45 inspectors in 1887, and since that time there has been no change in its effective strength, yet, according to the United States census, the estimated increase in the population of the city has been from 1,417,787 in 1887 to 1,663,190 in 1894. If we follow the figures of the State census the increase would appear to be still greater, the estimated number according to that table having been, in 1887, 1,538,814, in 1894, 1,957,452.

In addition to the increased labor demanded by this great gain in population and the consequent erection of many new houses, a large number of the newer tenement-houses require much more careful inspection than those of earlier construction. A line of plumbing, extending through the center of the house, supplies two water-closets on each floor and running water in each tenement, and this increased accommodation to the tenants involves very great additional labor upon the inspector. We, therefore, recommend that an addition of 15 be made to the present number of sanitary police.

Sixth. We recommend the establishment of a number of public bathhouses throughout the city. The difficulty of proper ablution in the ordinary tenement-house is such as to make personal cleanliness exceedingly difficult, and the hygienic as well as the moral importance of public baths is incontestable.

In 1891 the Association for Improving the Condition of the

Poor opened a public bathhouse at Center Market place, and the steadily growing appreciation of its advantages by the people of the neighborhood has sufficiently demonstrated its usefulness. The bathhouse was opened on August 17, 1891, and in the fiscal year of the association ending September 30, 1892 (the bathhouse having been in operation 13 1-2 months), 69,944 persons availed themselves of its opportunities. In the second year (12 months), ending September 30, 1893, the number of bathers was 68,629, and during the first six months of the present year, ending April 1st, there has been an increase over the preceding year of the number of bathers of 6,769. During the summer months the bathhouse can not now supply the demands made upon it.

Seventh. We recommend that the landlords of such tenement-houses as are now compelled by law to provide the services of a housekeeper, should be made responsible for the overcrowding of tenements. Such a provision has been in operation in the St. Pancras district of London for a number of years, and in 1890 was formally approved by the London council.

Without recommendation, the association would also beg to call your attention to the question of population per acre, with a view of urging the consideration of hereafter preventing overcrowding by specific legislative measures, as, for instance, the limitation of the number of persons housed per square yard. However satisfactory might be the hygienic features of improved dwellings, we believe that a crowded population in any one locality is morally dangerous.

The streets are the only playground for children in great sections of the city, and the necessary contact of great numbers, we believe to be injurious to the development of character.

We beg to call your attention to the fact that even since the addition of the thinly populated twenty-third and twenty-fourth wards of New York city, the population per acre is 65.5, while in London it is but 54. Some measures should certainly be taken to prevent any repetition in the newer quarters of the city of the crowded condition of the tenth ward of New York, in which the population is now 559.2 to the acre, while the most crowded district in London, St. George's, in the east, contains but 187 to the acre.

Very truly yours,

R. FULTON CUTTING,

President.

Letter from the Tenth Ward Sanitary Union.

TO RICHARD W. GILDER, *Esq.*, *Chairman of the Tenement-House Commission, New York City:*

The Tenth Ward Sanitary Union respectfully offers the following report of its work, which it hopes may be of some value to the commission in its labors. The union has been in existence since February 15, 1893. Its purpose has been to improve the general conditions of living of the people in the tenth ward, and especially to aid in improving the sanitary condition of its tenement-houses.

The method of attaining this purpose has been to visit the housekeeper and tenants, introduce ourselves, explain the object of our visits and ascertain the name and address of the landlord and agent. If any abuses were found we sought to locate the blame and if it were the fault of the tenants to induce them by greater regularity to fulfill their part. The visit is repeated to insure the fulfillment of the agreement, and is continued as long as is thought necessary. The general method of requiring the halls to be cleaned by the tenants is an illustration of the kind of work for which they are responsible. If the abuse be the fault of the owner the housekeeper is first urged to repair, then the agent and landlord are approached in order and if they will not do their duty the case is carried to the board of health. And we are very happy to be able to acknowledge that their co-operation has been willingly granted and never refused.

RESULTS OF THE WORK.

The work has been confined mainly to the tenements situated on Delancey, Chrystie, Forsyth and Eldridge streets. Up to March 1, 1894, 183 tenements had been visited. There were 723 entries in the books, which represent 2,500 families visited; 93 complaints were filed with the board of health and other departments. From March 1, 1894, to June 22, 1894, 73 different tenements were inspected, with a total of 192 visits to be recorded, and 679 families interviewed; 105 fire escapes were cleared, 50 sinks and several closets cleaned.

It should be added that the members of the society come from uptown and are able to give but one night a week to the work, and further, that there has been an average of eight workers, and as it has been found best, the workers should go out in pairs, there have thus been but four sets of workers.

Our work, as it will be seen, has been wholly practical. We do not claim to be profound students of sanitation or architecture and offer our suggestions for the reform of the present tenement

system solely on the basis of what we have seen, and our experience with the existing legislation.

We venture to note certain evils which are really covered by the existing laws.

1. The law requires but one water-closet for 15 occupants. This involves two evils. First, the offense against modesty and privacy; second, the difficulty of keeping the closet properly clean, and of locating the responsibility when this is not done. We believe that each family should have its own closet, or at the most, one should be provided for every two families.

2. The law requires that all ceilings and walls should be white-washed semi-annually. As the officers of the board of health at present are only able to make their rounds about once in 11 months this regulation is rarely observed.

3. The law requires that the fire escapes shall not be occupied by any objects whatsoever. This is a dead-letter and is never carried out in this part of the city, the practical law being that vegetable matter shall not be allowed to accumulate, and that the staircases shall not be covered. This is probably felt to be a necessary concession to the crowded condition of life in this quarter. Our belief is that the present law should be enforced, as all such concessions tend to make the existing system of crowding more tolerable. A trap-door over the opening is needed as now the parents lay down boards for the safety of the children, and these are not always easy to remove in necessity.

Evils not Covered by the Existing Laws.

1. We think there should be a reconstruction of the responsibilities of tenant and landlord. The tenant should be held strictly responsible for his own apartments and the landlord for all parts of the tenements which the occupants use in common, i. e., the halls, staircases and yards.

Housekeepers, as the resident agents of the landlords, should be required to keep the cellars, yards and sidewalks clean, and to direct the removal of garbage; also to see that the halls, stairs, sinks and water-closets connected with the house are cleaned at regular intervals. Abuses in these places by the tenants should subject them to complaint from the landlord to the board with subsequent fine, and the fine should be imposed on the landlord if such complaint of the tenant is not made. The landlord should also be responsible for the condition of the fire escapes and upon his complaint any obstructions should be confiscated. We are aware that this would involve greater expense of superintendence to the landlord, but believe that in no other way can the present evils be satisfactorily treated. Our practical experi-

ence with the cleaning of the hallways, where the landlord is required to see that the tenants do it is that the work is not done and the responsibility is hard to fix.

2. The semi-annual inspections required by law seem insufficient to remedy evils constantly occurring, and we recommend quarterly inspections and that the force of sanitary inspectors be increased to 100.

3. In cases where the responsibility for an offense can not be located, we believe that the imposition of a fine, one-third of which should be paid by the landlord and two-thirds by the tenants on whose floor it is committed, would be the best solution of the divided responsibility.

4. We recommend for new tenements an air-tight ash and garbage chute, as the best solution of the removal of garbage during the day. Without this the tenants will persist in throwing rubbish out of the windows or storing it on the fire escapes.

5. We agree with President Wilson, that the tenements hereafter to be erected should be fireproof; that the use of paper on the walls and ceilings of the tenements should be forbidden; that the halls of all tenements should be lighted at all hours of the night; and as to the seventh recommendation, that "the board of health can permanently vacate and cause to forbid the further use of any rear tenement-house as a human habitation which, in its opinion, from age and dilapidation, impossibility of securing proper light and ventilation, or unsanitary condition for a long period, is unfit for that purpose," we believe that such statutes, if enacted, should include also the front tenement found in similar conditions.

6. For tenements, where the hallway does not extend through the building, with windows at both ends, glass panels in the doors would be desirable for light in the daytime, as now such tenements are often nearly as dark during the day as at night.

7. We recommend the abolishment of the common sink. Where they are placed in the halls and used by four families, it is always difficult to locate the responsibility for keeping them free from filth. As a matter of fact, we have usually found these sinks in an unsanitary condition, emitting a foul odor.

8. We recommend the erection of public baths at central places in each district, and believe such arrangements to be essential to the cleanliness of the population. We feel sure that if such were provided the people would use them.

9. Equally essential is the establishment of public lavatories and their relation to the tenement system will be appreciated by any one who knows the odors which infest the alleyways of the tenements. The abuses of the dray wagons constantly

standing in the streets and the foul smells around them give added emphasis to this plea.

10. We believe that the rear tenements should be wholly destroyed, and the space reserved for open courts and playgrounds for the children. Even such as are not in an unsanitary condition overshadow the lower stories of the front house and are in turn overshadowed by them, to the exclusion of light and air.

These recommendations represent the worst evils which we have encountered in our work. We are aware that some of them are quite radical and involve serious changes in the entire system and interference with hitherto recognized rights of the owners. But we think it has been sufficiently demonstrated that a large part of the owners will do nothing unless forced by the law, and then only so much as the letter of the law requires. We have encountered many owners who appreciated our work and who could not do more themselves because they were restrained by the competition of others.

We believe, therefore, that radical measures of reform would be in the interests of both landlord and tenant and would command the approval of the best people of both classes.

Respectfully submitted.

M. E. KITZINGER,

Chairman.

A. GOODKIND,

Secretary.

Indorsed by James B. Reynolds, head worker of the University Settlement.

Additional Statement from Battalion Chief Bresnan.*

After his appearance on the stand, Battalion Chief Bresnan handed in the following statement in the form of questions and answers:

Question.—Chief, you have been present at previous sessions of this committee, and have heard the suggestions in relation to improving tenement-houses, and making them less subject to fires, and less dangerous to life during and as a result of fire. And you have yourself given testimony and suggestions on this subject at former hearings.

* At a meeting of the tenement-house committee on Monday, December 31, 1894, the following was adopted:

Resolved, That this committee has learned with profound regret of the death on this day of Battalion Chief John J. Bresnan, at the post of duty. The committee desires to place on record its sense of obligation to Chief Bresnan for his continued intelligent and highly valuable assistance during the entire course of their labors. No one not connected with the committee has devoted more time and industry to the collection of information in its behalf and the furtherance of its objects as concerning the question of the safety of tenement-house dwellers from fire.

The secretary is directed to forward a copy of this resolution to the family of the deceased.

Answer.—Yes, sir.

Question.—Have you further suggestions and recommendations on this subject, that you believe should be embodied in recommendations of this committee, and will you please state them?

Answer.—I have heard the testimony of Chief Bonner and others in relation to the stairway, between the cellar and the first floor of tenement-houses, and I concur in their opinion, if the stairway could be excluded from interior communication with the first floor, it would be, so far as a rapid spread of fire is concerned, and the prevention of smoke ascending quickly, one of the best improvements that could be made.

However, it may inconvenience the occupants of the premises too seriously to cut off internal stairway from the communication between the first floor and the cellar. In that event I would recommend that the law in all instances should compel the placing of iron or tin-lined self-closing doors properly framed, and hung at the bottom of the stairway, as well as to the entrance of the stairway, between the first floor and cellar, which the existing law demands.

Second. The law relating to the fireproof construction of tenements, should require this provision to apply to tenements, irrespective of height. The present law requires fireproof construction of the first floor in tenements, five stories or more in height.

Third. I also advise an addition to the law, which will require all tenements in which the first floor contains a store or manufacturing premises, to be so constructed, that the hallway of the first floor will have no communication, such as windows and transoms between the store or any portion of the same, and the hallway; also prohibiting any doorway between such stores and hallways, except when made of fireproof construction, and to be self-closing.

Fourth. Further, I advise in the erection of all fire escapes, and the addition to all existing fire-escapes, especially in the rear of buildings, fire-escape ladders to the roof, so that the escape shall lead upward, as freely as downward. In other words, it will afford an escape to the roof as freely as to the street level. When practicable, I would also recommend that the fire-escapes in the front of the building should also lead to the roof in the manner described.

Fifth. All balcony fire escapes connecting two or more buildings should be provided with ladders, between the balconies of fire-escapes, the same as is required for fire-escape balconies on single buildings.

Sixth. Also that the law be so amended that the owner, lessee or agent is held responsible for obstruction of fire escapes.

ST. JOHN'S PARK.

The following statement is from Colonel S. V. R. Cruger (see, also, testimony):

The facts in reference to St. John's park are briefly as follows:

Trinity church owned it, in connection with the other owners of property fronting on the park. The question of the sale of the park originated with the other owners, who urged upon Trinity that it ought to join in, so as to bring business there. A few owners, however, were unwilling to join in the conveyance for the reason that they wanted more than the share which they would be entitled to at the price of \$1,000,000 which Mr. Vanderbilt was willing to give. As the railroad company and the other owners were anxious to have the transaction go through as speedily as possible, it was arranged that the \$1,000,000 should be paid to Trinity church, and that this corporation would make the distribution.

Trinity church, in order to obtain a release from these few owners, was obliged to pay them more than their share, the surplus coming out of the money due Trinity church.

TOTAL	AREA	80000 sq. ft.
" UNOCCUPIED "		15980 "
" OCCUPIED "		64020 "
FLOOR		304242 "
HAZARDOUS RISK		9046 "
" FLOOR "		46714 "

EXPLANATION:

DWELLINGS ARE SHOWN THUS
HAZARDOUS RISKS



50 ft.

50 ft.

ST.

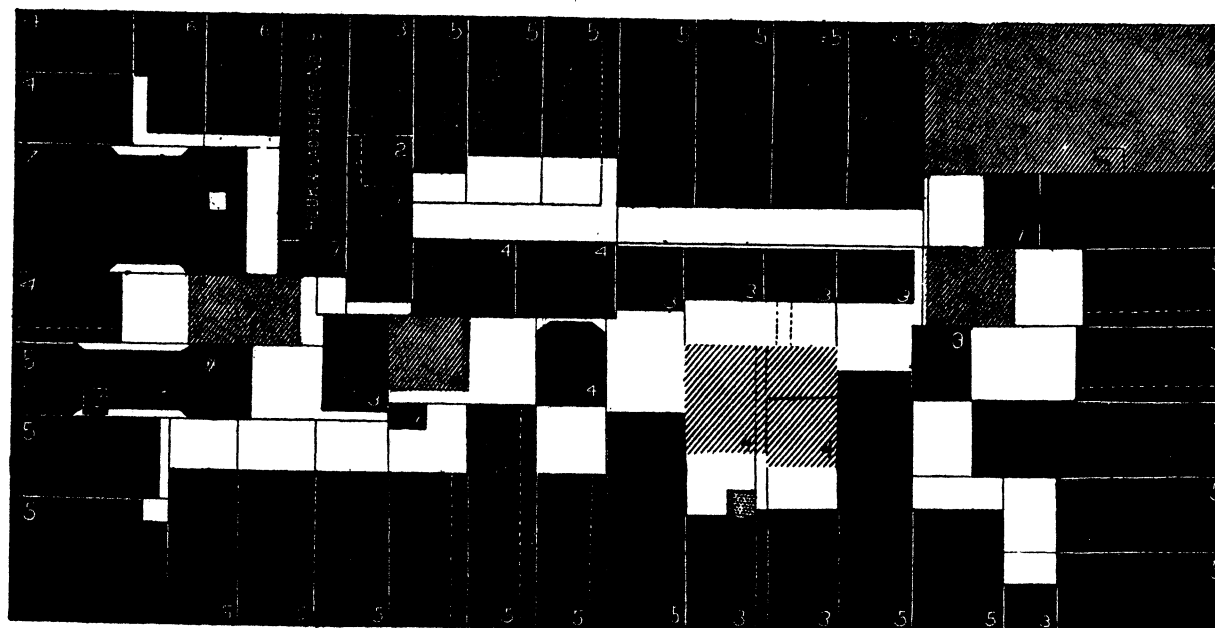
ATTORNEY

ST.

ST.

50 ft.

DELANCY



RIVINGTON

RIDGE

ST.

50 ft.

50 ft.

George J. Darnish, C.E.
Nov 16 1920

Showing Small Unoccupied Area in Block Bounded by Delancy, Ridge, Rivington and Attorney Streets.



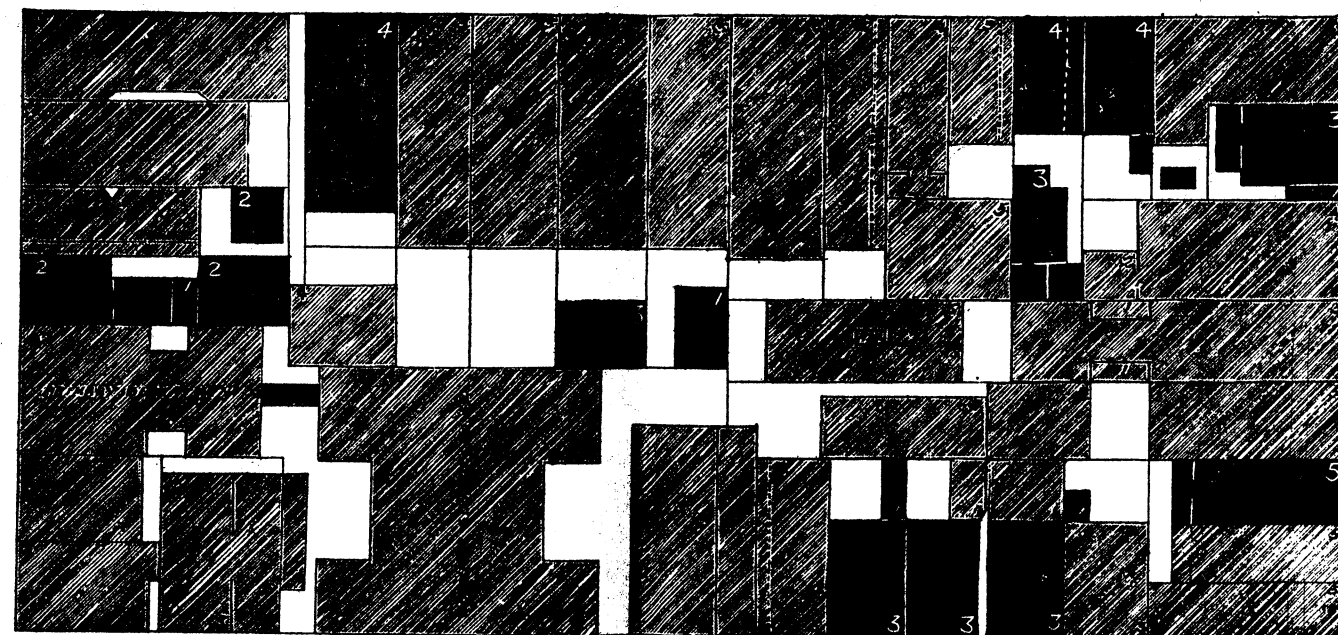
TOTAL	97125	Sq. ft.
" OCCUPIED	82584	"
" FLOOR	367301	"
HAZARDOUS RISKS	10980	"
" FLOOR	33346	"

NOTE: HAZARDOUS RISKS ARE SHOWN THUS:
PERCENTAGE COVERED 15.03

Geo. D. Macnab, C.E.

ST.

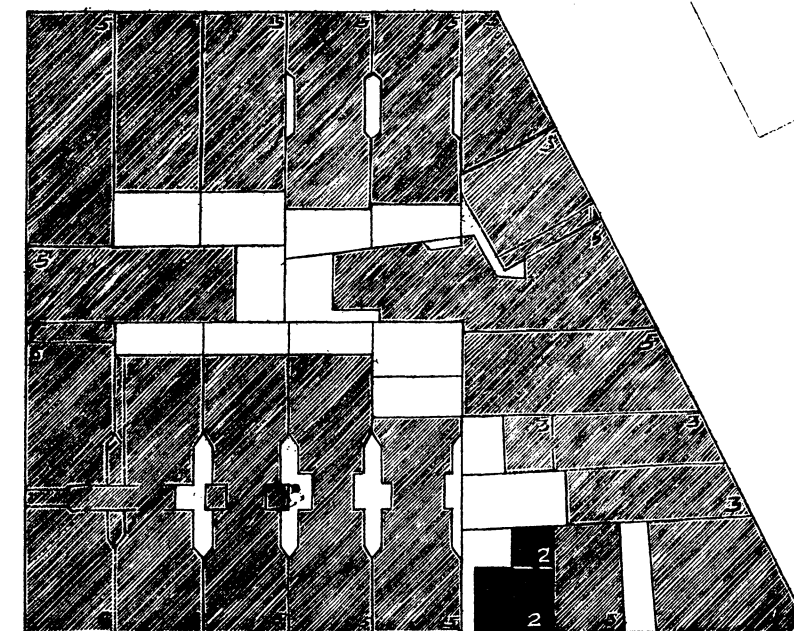
ORCHARD



ALLEN

ST.

ST.



ST.

PIKE

DIVISION



Showing Small Unoccupied Areas in Blocks Bounded by Orchard, Hester, Allen, Canal and Division Streets.

TOTAL	AREA	51 975 sq. ft.
" OCCUPIED	"	44 750 "
" FLOOR	"	169 909 "
HAZARDOUS RISKS	"	7 720 "
" " FLOOR "	"	17 740 "

NOTE: HAZARDOUS RISKS ARE SHOWN THUS ■

PERCENTAGE COVERED 26.10

Geo. J. Macnab, C.E.

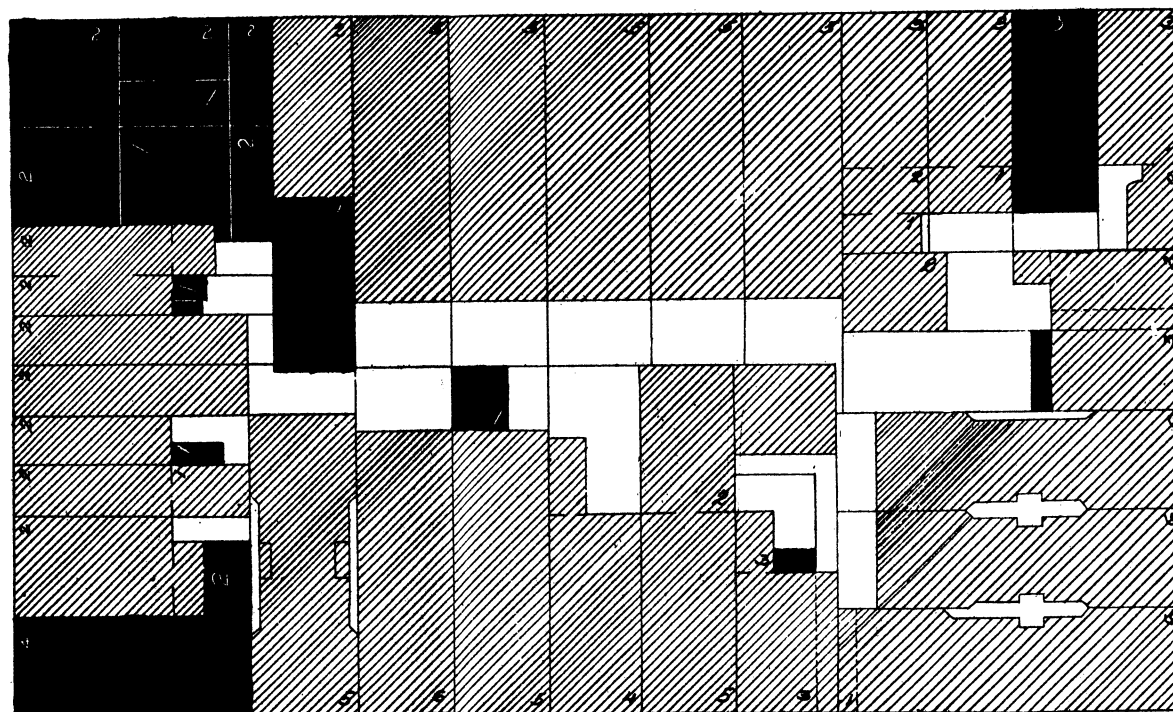
ST.

ST.

ORCHARD

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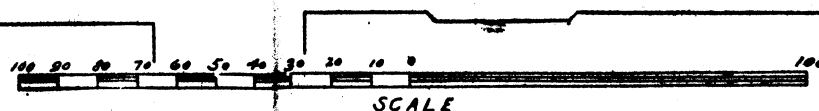
GRAND

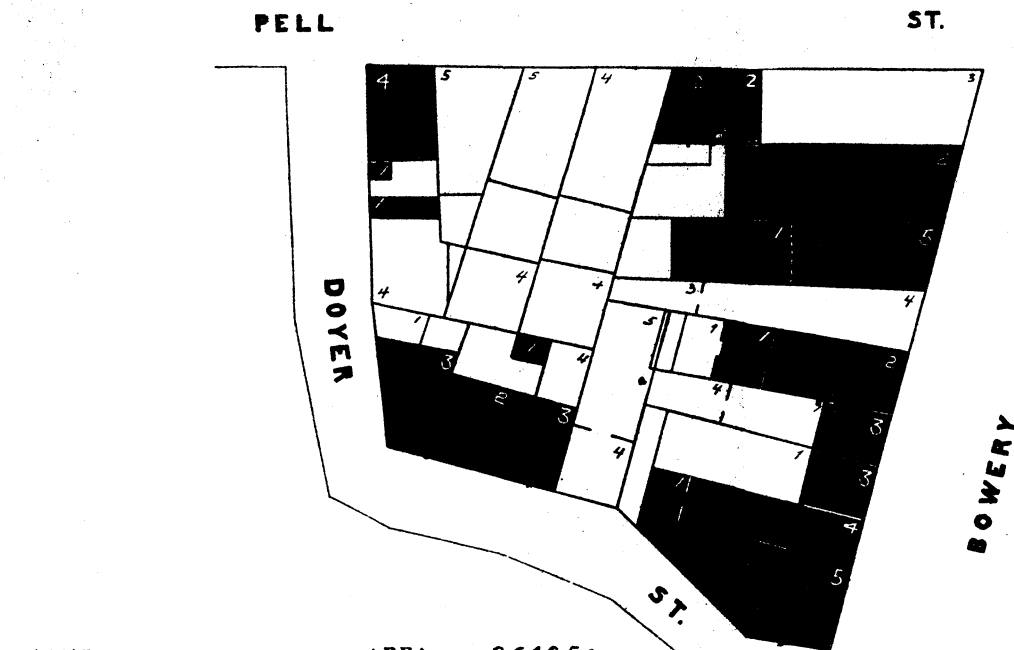


BROOME

LUDLOW

ST.





TOTAL	AREA	26425	Sq. ft.
" OCCUPIED	"	24317	"
" FLOOR	"	78752	"
HAZARDOUS RISKS	"	11612	"
" " FLOOR	"	33795	"

NOTE: HAZARDOUS RISKS ARE SHOWN THUS ■
PERCENTAGE COVERED 52.78



Scale

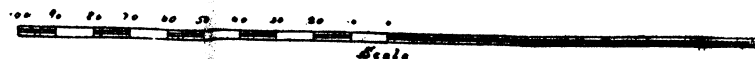
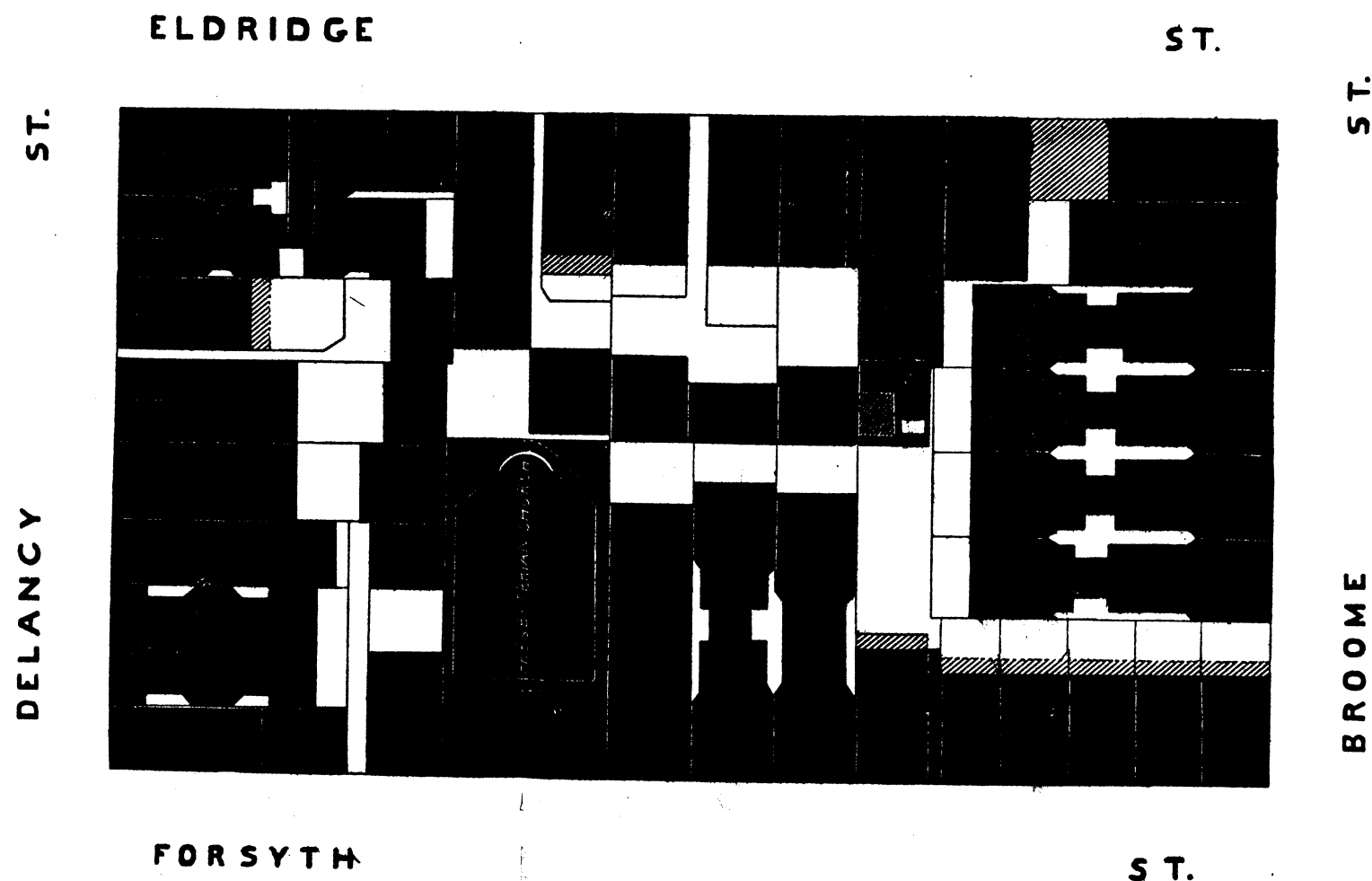
Geo J. Marnel, P.E.

Showing Small Unoccupied Area in Block Bounded by Bowery, and Doyer and Pell Streets.








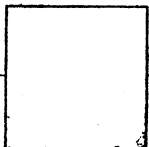




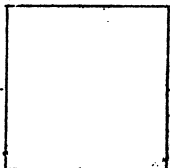




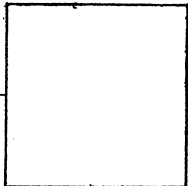


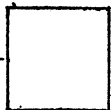
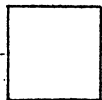
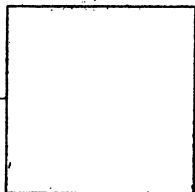



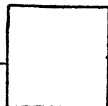
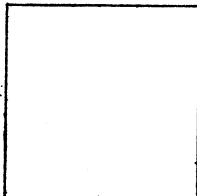




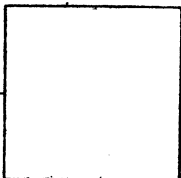




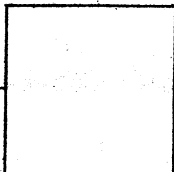




TOTAL	AREA	70000	Sq. Ft.
"	OCCUPIED	"	57216 " "
"	FLOOR	"	236076 " "
HAZARDOUS RISKS	"	"	1325 " "
	FLOOR	"	5625 " "

NOTE: HAZARDOUS RISKS ARE SHOWN THUS ■



Showing Small Unoccupied Area in Block Bounded by Forsyth, Broome, Eldridge and Delancy Streets

STREET LOCATION	TOTAL AREA IN SQ. FEET	TOTAL OCCUPIED AREA	TOTAL FLOOR AREA	HAZARDOUS RISKS AREA	HAZAROUS RISKS FLOOR AREA
<u>PELL DOYERS AND BOWERY.</u>					
<u>CANAL ORCHARD, DIVISION, ALLEN.</u>					
<u>BROOME LUDLOW GRAND ORCHARD.</u>					
<u>ESSEX, HESTER, NORFOLK, DIVISION.</u>					
<u>HESTER, ORCHARD, CANAL, ALLEN.</u>					
<u>DELANOY, ELDRIDGE, BROOME, FORBYTH.</u>					
<u>DIVISION, RUTGERS, EAST BROADWAY FIVE.</u>					
<u>ESSEX, BROOME, NORFOLK, GRAND.</u>					

GRAPHIC REPRESENTATION OF COMPARATIVE AREAS

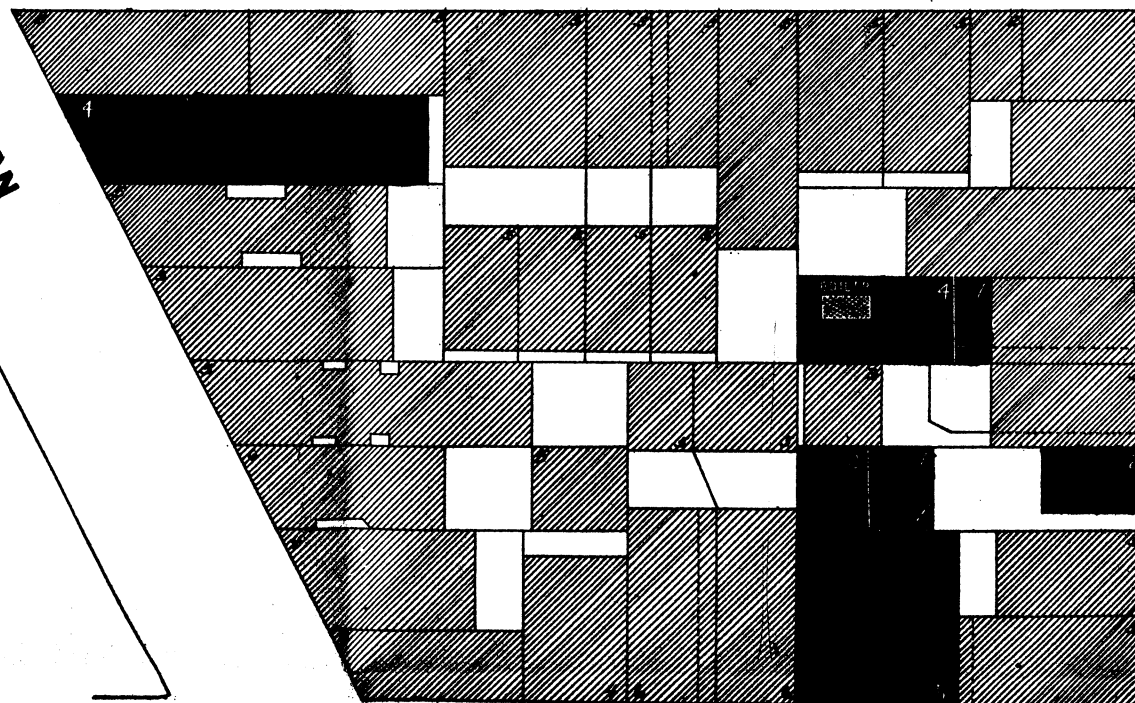
TOTAL	AREA	55000	SQ. FT.
"	OCCUPIED	"	46426
"	FLOOR	"	212313
HAZARDOUS RISKS	"	8119	"
"	" FLOOR	"	30688
PERCENTAGE COVERED		84.41	

NOTE: HAZARDOUS RISKS ARE SHOWN THUS ■

ESSEX

ST.

DIVISION

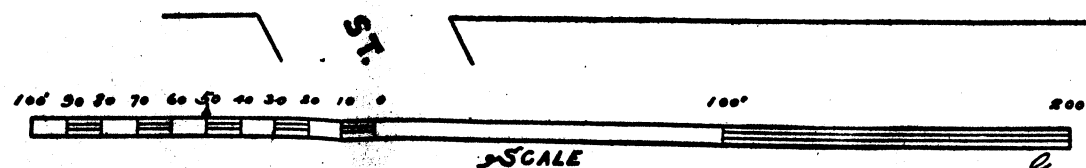


ST.

HESTER

NORFOLK

ST.



Geo. J. Macnab, C. E.

Showing Small Unoccupied Area in Block Bounded by Essex, Division, Norfolk and Hester Streets.



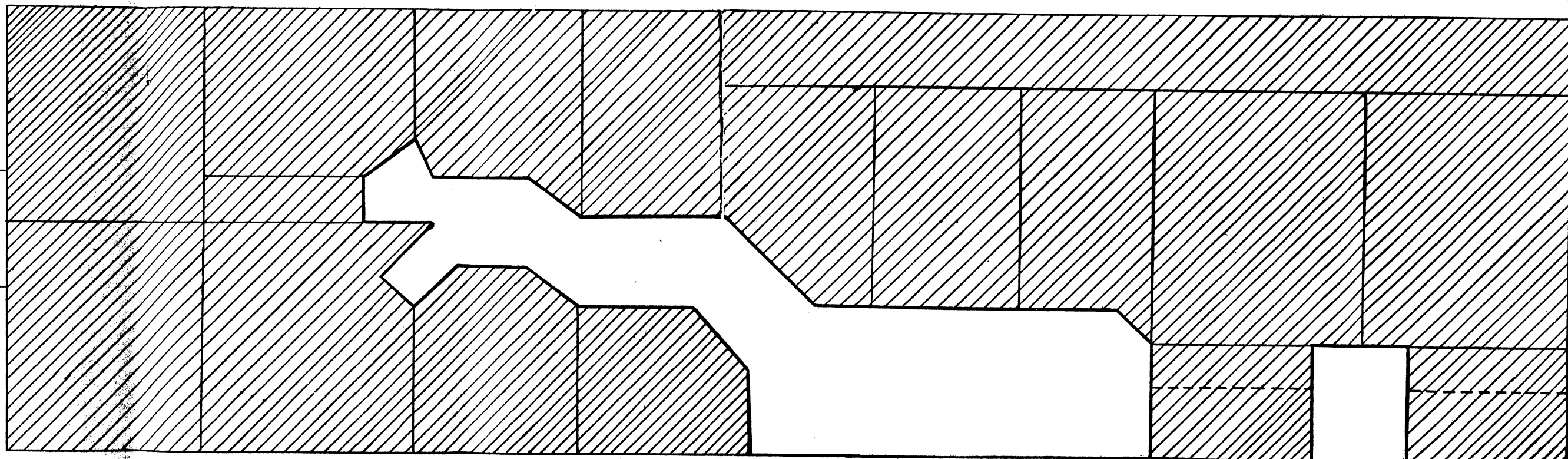
TOTAL AREA	507
OCCUPIED "	419
FLOOR "	2517

SCALE 1 INCH = 5 FEET.
PERCENTAGE COVERED 82.6

VESTRY ST.

FIRE ESCAPE

13

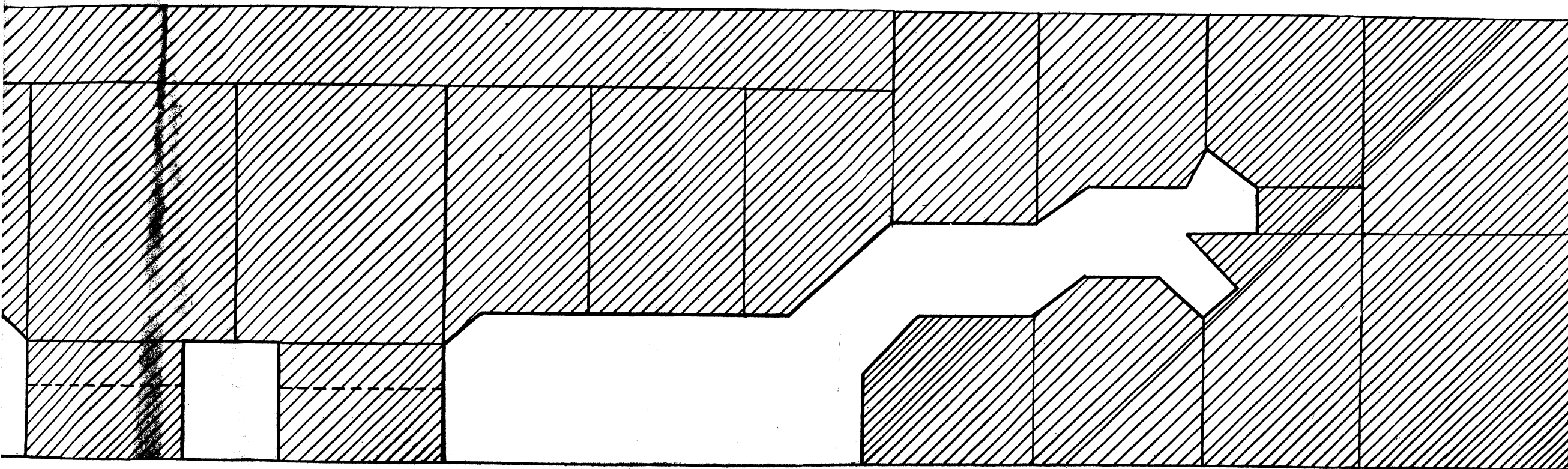


Showing Small Unoccupied Area and Lack of Proper Fire Escapes at 13 Vestry Str.

TOTAL AREA 5075 SQ. FT.
 OCCUPIED " 4195 "
 FLOOR " 25170 "

SCALE 1 INCH = 5 FEET.
 PERCENTAGE COVERED 82.66

Geo. J. Macnab, C. E.



34
FIRE ESCAPE

LAIGHT ST.



SUPPLEMENT No. 18.

Overcrowded Areas.

This supplement consists of maps of certain overcrowded blocks in New York; with graphic representations of comparative areas,* etc. The former are by Mr. George T. McNab, the latter by Mr. D. W. King; who states as follows:

GRAPHIC REPRESENTATION OF COMPARATIVE AREAS IN TENEMENT-HOUSES IN NEW YORK CITY.

These drawings are not intended as a check on the calculations of the results of the engineer about whose work there is no question, but were executed at the suggestion of Mr. W. d' H. Washington, who, after having received (from the surveyor, Mr. George T. Macnab,) the maps and tabulated reports of the comparative areas of ground, occupied areas, floor areas, etc., of certain blocks in the tenement districts, concluded that a graphic representation of these areas would prove interesting, and illustrate more clearly and vividly the existing conditions than figures alone.

Each square in the different diagrams is intended to correspond in area to the figures given by the engineer, but being drawn to a small scale, can only be considered approximations, but quite sufficient for the purpose intended.

In each case the area of the ground is represented by a square, colored green. The ground covered by the building is represented by a square, colored a burnt Sienna yellow; the total floor area is shown by a square, colored a light Indian yellow. The hazardous risks area, is represented by a square tinted a dark red. While the hazardous risks floor area is represented by a square, colored a light red.

DAVID W. KING.

* Only a part of these graphic presentations by Mr. King are reproduced here.

STREET LOCATION.	Total area in square feet.	Total occupied area.	Floor area.	Hazardous risks, area.	Hazardous risks, floor area.	Percentage covered.
Pell, Doyers, Bowery	26,425	24,317	78,752	11,612	33,795	92.78
Canal, Orchard, Division, Allen	31,500	27,210	129,305	650	1,300	86.38
Broome, Ludlow, Grand, Orchard	51,975	44,750	169,909	7,720	17,740	86.10
Essex, Hester, Norfolk, Division	55,000	46,424	212,313	8,119	30,688	84.41
Hester, Orchard, Canal, Allen	65,625	55,374	237,996	10,330	32,346	84.38
Delancy, Eldridge, Broome, Forsyth	70,000	57,216	236,076	1,325	5,625	81.74
Division, Rutgers, East Broadway, Pike	56,504	46,184	197,470	1,195	3,790	81.74
Essex, Broome, Norfolk, Grand	60,000	48,495	195,863	9,705	27,813	80.83
Rivington, Essex, Delancy, Ludlow	69,475	56,055	276,365	4,625	14,451	80.68
Attorney, Rivington, Ridge, Delancy	80,000	64,020	304,242	9,046	46,714	80.03
Hester, Ludlow, Canal, Orchard	65,625	52,401	224,826	6,866	24,391	79.85
Delancy, Essex, Broome, Ludlow	61,250	48,871	220,031	6,575	23,422	79.79
Division, Pike, East Broadway, Market	67,600	53,722	222,671	11,167	39,856	79.47
Essex, Delancy, Norfolk, Broome	70,000	55,359	237,979	12,929	56,324	79.08
Canal, Forsyth, Bayard, Chrystie	80,000	63,030	301,245	9,055	26,470	78.79
Hester, Forsyth, Canal, Eldridge	75,000	59,081	267,167	6,927	23,101	78.77
Norfolk, Delancy, Suffolk, Broome	70,000	55,080	259,105	7,945	34,335	78.69
Rivington, Eldridge, Delancy, Forsyth	79,400	62,405	262,615	11,441	29,391	78.60
Birmingham, Madison, Market, Henry	48,660	38,200	165,421	4,831	21,600	78.50
Essex, Grand, Norfolk, Hester	80,000	62,702	250,696	19,059	51,735	78.38
Delancy, Allen, Broome, Eldridge	61,250	47,665	225,055	2,605	9,805	77.82
Rivington, Forsyth, Delancy, Chrystie	79,400	61,229	282,762	5,220	17,205	77.11
Clinton, Broome, Attorney, Grand	60,000	46,250	176,525	19,875	70,775	77.08
Rivington, Orchard, Delancy, Allen	69,475	53,545	232,175	7,689	28,857	77.07
Suffolk, Delancy, Clinton, Broome	70,000	53,800	234,148	12,013	40,638	76.86
Suffolk, Rivington, Clinton, Delancy	80,000	61,113	290,674	7,613	25,682	76.39
Hester, Essex, Canal, Ludlow	65,185	49,248	217,626	8,406	28,344	75.55
Delancy, Orchard, Broome, Allen	61,250	46,125	222,750	2,160	7,265	75.31
Essex, Rivington, Norfolk, Delancy	80,000	59,941	269,962	3,690	14,290	74.93
Norfolk, Grand, Suffolk, Hester	79,600	58,776	283,822	9,110	40,880	73.84
Rivington, Ludlow, Delancy, Orchard	69,475	51,020	193,530	7,840	29,580	73.44
Rivington, Allen, Delancy, Eldridge	69,475	49,525	154,410	19,987	54,662	71.28
Delancy, Ludlow, Broome, Orchard	61,250	42,894	165,021	11,765	39,655	70.00
Delancy, Forsyth, Broome, Chrystie	70,000	48,375	178,555	7,675	20,075	69.11
Total 34	2,240,399	1,750,402	7,577,062	286,770	972,600	78.13

Acres in total area 51.43
 Ratio of total area to hazardous risks, area 12.80
 Mean floor height of occupied area 4.33

December 21, 1894.
 GEORGE T. MACNAB,
 Civil Engineer.

SUPPLEMENT No. 19.

Legislation in Other States and Countries.

To the New York Tenement-House Committee :

The sub-committee on legislation in other States and foreign countries respectfully reports as follows: Your committee has requested answers to the following questions, of the secretary of each State and territory in the United States, except the State of New York:

"1. What laws or municipal ordinances have been passed by your State concerning tenement-houses or dwellings of the poor; including such laws or ordinances as have been passed in relation to sweating or the manufacture of commodities in buildings where two or more families reside?

"What official investigations have been made in your State into any of these subjects?"

Answers have been received from 32 States and the territory of Oklahoma. These answers show that no official investigations or legislation upon these subjects have been made by the State or Territorial authority in 26 States and Territories, namely: Delaware, Virginia, New Mexico, Florida, Washington, Idaho, Indiana, except as regards the regulation of child labor, Vermont, West Virginia, New Hampshire, North Dakota, South Dakota, California, Arizona, Oregon, Kentucky, Minnesota, South Carolina, Alabama, Kansas, Wyoming, Missouri, Nevada, Maine, Montana and Oklahoma. No investigations have taken place in Connecticut or Wisconsin.

In Connecticut the statute provides that tenement-houses occupied by more than five families and over two stories in height, shall be provided with fire escapes.

In Wisconsin, chapter 304 of the Laws of 1889, requires that every tenement building be provided with fire escapes. Laws of 1887, chapter 549, also provides that no more persons shall be put to work in a factory, room, or workshop, "than the laws of health will warrant, as shall be determined by the board of health."

In Nebraska, the only legislation on the subject is section 30 of chapter 12a, of the Laws of 1891, which gives the board of health charge, control and supervision of the sanitary condition of houses, tenements, manufactories, and all public and private buildings of every sort.

In Ohio, the act of April 18, 1892, provides "that all stairs or stairways for ingress or egress to and from all tenement-houses, apartments, manufactories, mills, shops, stores, churches, hotels, and halls for public meetings, etc.", shall be provided with a good substantial hand-rail extending from the top to the bottom of said stairs or stairways, etc., made of wood not less than one and one-half inches wide and two and one-half inches thick, or iron not less than one and one-half inches in diameter.

The laws of Ohio also require fire-escapes upon tenement-houses (Ohio R. S., section 2573); and provide for light, air and ventilation in tenement-houses by requiring that there shall be between such buildings one story high a space of 10 feet wide; two stories high, a space of 15 feet wide; three stories high, a space of 25 feet wide; and in every case the length of the space shall not be less than three-quarters the distance of the width of the buildings. (Ohio act, April 15, 1889, § 43; Ohio R. S., [8223-112].) Every sleeping-room in a tenement-house which does not connect directly with open air, must in that state have a moveable window or transom not less than three feet square opening into a room which communicates directly with the open air. (Ohio act, April 15, 1889, § 44; Ohio R. S. [8223-113].)

In Illinois, the act of June 17, 1893, forbids the manufacture, in whole or in part, of clothing, feathers, artificial flowers, or cigars, in tenement or dwelling-houses used for eating or sleeping purposes, except by the immediate members of the family living there, with provisions for the inspection of the same. This is substantially similar to the New York law upon the subject. (See N. Y. Laws of 1886, ch. 409, as amended by the Laws of 1893, ch. 173, section 113.) The reports of Inspector Florence Kelly to the Legislature of the State of Illinois upon the subject of factory inspection are well written and interesting.

In Massachusetts, chapter 508 of the Laws of 1894 provides that:

"Whenever any house, room or place used as a dwelling is also used for the purpose of carrying on any process of making, altering, repairing or finishing for sale any ready-made coats, vests, trousers, overcoats or any wearing apparel of any description whatsoever, intended for sale, it shall, within the meaning of this act, be deemed a workshop; and every person so occupying or having control of any such workshop shall,

within fourteen days from the time of beginning work in such workshop notify the chief of the district police or the special inspector appointed for that purpose, of the location of such workshop, the nature of the work there carried on, and the number of persons therein employed; the exercise of such work in a private house or private room, however, by the family dwelling therein, or by any of them, shall not of itself constitute such house or room a workshop within the meaning of this act; provided, that such family, or any member of such family, engaged in the process of making, altering, repairing or finishing for sale any such coats, vests, trousers, overcoats or any wearing apparel of any description whatsoever, intended for sale, in a private house or private room used as a dwelling as aforesaid, shall, before beginning such work, procure a license approved by the chief of the district police, upon the recommendation of the inspectors especially appointed for the enforcement of the provisions of sections forty-four, forty-five, forty-six, forty-seven and forty-eight of this act; and no person, contractor, firm, or corporation shall give to any person not holding said license any such garments or articles of wearing apparel, intended for sale, to be made in any private house or room as aforesaid; and every such workshop and every such private house or private room shall be kept in a cleanly state, and shall be subject to the provisions of this section; and each of said garments made, altered, repaired or finished for sale in any of such workshops, private houses or rooms shall be subject to the inspection and examination of the inspectors of the district police, for the purpose of ascertaining whether said garments or any of them, or any part or parts thereof, are in cleanly condition and free from vermin, and every matter of an infectious or contagious nature.

“Whoever knowingly sells or exposes for sale any ready-made coats, vests, trousers or overcoats which have been made in a tenement-house used as a workshop, as specified in section forty-four of this act, shall have affixed to each of said garments a tag or label not less than two inches in length and one inch in width, upon which shall be legibly printed or written the words, ‘Tenement-made,’ and the name of the State and the town or city where said garment or garments were made.

“No person shall sell or expose for sale any of said garments without a tag or label as aforesaid affixed thereto, nor sell or expose for sale any of said garments with a false or fraudulent tag or label, nor willfully remove, alter or destroy any such tag or label upon any of said garments when exposed for sale.”

In the same State the construction of tenement-houses is regulated as regards fire-escapes, other exits for use in fires, and the

protection of ventilating shafts. (Mass. Laws of 888, ch. 316; Laws of 1888, ch. 426.)

In Maryland, chapter 302 of the Laws of 1894, makes it a penal offense to manufacture garments or other similar articles in "any room or apartment which shall not contain at least 400 cubic feet of space for each person habitually laboring in or occupying the same; or wherein the thermometer shall habitually stand, during the hours of labor, at or above 80 degrees Fahrenheit, before the first day of May or after the first day of October of any year, or wherein any person, suffering from a contagious, infectious or otherwise dangerous disease or malady, shall sleep, labor or remain, or wherein, if of less superficial area than 500 square feet, any artificial light shall be habitually used between the hours of 8 a. m. and 4 p. m., or from which the debris of manufacture and of other dirt or rubbish shall not be removed at least once in every 24 hours, or which shall be pronounced ill-ventilated or otherwise unhealthy by any officer or board having legal authority so to do." (Maryland Laws of 1894, chapter 302.)

Your committee have also, through the State Department of the United States, requested answers to the following questions of consuls of the United States in the cities of London, Liverpool, Glasgow, Paris, Brussels and Berlin:

"1. What laws or municipal ordinances, regulating the construction and use of tenement-houses, dwellings for artisans, or houses in which three or more families reside, are in force in the city where your office is situated ?

"2. What has been the practical effect, as regards morals, crimes, health and otherwise, of the operation of such laws and ordinances ?

"3. In this connection, please state whether there has been any change in the death-rate, number of illegitimate children and of crimes committed in the district ?

"4. Have any tenement-houses, artisans' dwellings or dwellings containing three or more families been constructed in your city or in its vicinity by the national or city government, or by any philanthropical societies or individuals ?

"5. If so, please describe them and state what has been the practical effect, as regards morals, crimes, health and otherwise, of their construction and use. In this connection, please state whether there has been any change in the death-rate, number of illegitimate children and of crimes committed in the district.

"6. Has any investigation into the condition of dwellings of the poor been recently made in the locality ? If so, please send a copy or abstract, of the report, containing a full copy of any recommendations therein made."

Answers have been received from the consuls of the United States at Brussels, Berlin, Liverpool, Glasgow, Paris and London.

The evil effects of crowded and insanitary tenements in the city of Brussels resulted, in 1889, in the passage of a law relative to artisans' houses. This provided for the establishment in each administrative district of one or more committees, charged with building and renting or selling improved tenements; with investigating the sanitary condition of the houses in their district and the healthfulness of the locality; and to encourage economy and insurance. The committees are called committees of patronage and the members — some selected by the government and others by the provincial council — serve three years. They are not subject to interference by the public health officers. They are expected to establish rewards for cleanliness and economy, to be paid from endowments or public subsidies, and they are required to make annual reports of their operations. Their recommendations receive special consideration. The law authorizes the General Savings Bank to loan funds for building or buying tenements upon advice of the committee, negotiating insurance on life as guarantee of repayment. Provision is made for receiving donations and legacies, to be used in constructing approved homes for workmen, and the workmen are encouraged to own their houses by reductions in taxes and fees, provided they are not owners of other property. Co-operative building societies are similarly encouraged.

Several societies receiving government support have been organized to build model tenements, and although exact statistics are lacking, it is the general opinion that crimes have decreased in consequence, and that the moral evils, due to overcrowding, have been lessened. Mortality has steadily decreased. The condition of the workingman is, however, still a serious problem in Brussels. Of the total population of 168,145 in 1890, there were 19,284 workingmen's families. Of these, 9,364 lived in a single room, and 1,511 of the families living in a single room numbered more than five persons. In 406 families the boys and girls slept in the same bed. There are 2.05 drinking saloons in the city to every 100 inhabitants, and 17.54 to every 100 families of workingmen. Of the total number of 19,284 families of workingmen, 10,462 received assistance from public benevolent institutions in Brussels in 1890, and this startling fact was indirectly responsible for the complete failure of an attempt to establish homes for the workingmen in the suburbs. Those for whom the homes were designed refused to live in them, because they were so far from the sources of charity.

The consul-general at Brussels has sent a full report of the Belgian system of committees for the encouragement of building and

renting salubrious "tenement-houses," and the sale of the same to artisans. The houses are divided into two classes: "First, groups of four houses each of which is intended for a single family, and each habitation is provided with a garden. The second, houses having a common entrance, but divided into several apartments and designed to accommodate a number of inhabitants." The report is accompanied by plans of these houses, the laws in force in Brussels regulating the administration of the health department, and buildings, and statistics concerning the condition of tenement-houses and artisans' dwellings in Brussels, with the rents, number of families, etc. Information concerning the administration of the health department is very full, and is accompanied by copies of the official documents used. These have been sent by your committee to Dr. Edson. The matter concerning building laws and the plans of the improved artisans' dwellings have been sent to the secretary of this committee for transmission to the sub-committee on buildings.

The consul-general in Berlin, reports that no laws or municipal regulations exist concerning the construction and use of tenement-houses in Berlin, and neither the municipal government, nor the national government has taken a hand in the building of such structures. Capital has been devoted to the building of expensive apartment-houses, and the tenement districts have been left untouched. In the words of the consul: "Berlin is over-built for rich people and those with moderate, fixed incomes; it is under-built for the laboring classes." Rents have risen and wages have fallen, until the average wage-earner, who has a family, is forced to pay half of his income for rent and to take in lodgers of both sexes and of all degrees of decency, including "the floating population which deals in and distributes vice, infectious diseases and punishable crimes." Efforts made by the Berlin police to stop this sub-letting system have only added to the misery of the working classes. The system has harmed family union and often corrupted the young. "Illegitimate children born to very young girls are the natural result of promiscuous herding together of the sexes."

Repeated efforts have been made to prevent the crowding of the large floating population in single rooms, which offer places for the beginning of epidemics and the worst of these "pens," as they are called, have been abolished, "but there is a constant tendency to their revival, in defiance of the police, while the size of building lots has grown gradually smaller, the proportion of people to the lot has grown larger, increasing from 48.3 per cent. in 1861 to 66 per cent. in 1885." It is a significant fact that the unwillingness of capitalists to build tenements is largely due to

the fact that property owners in Berlin are heavily taxed and much worried by police regulations, and "find it safer to take the chances of renting to the well-to-do for long periods than to enter the laborious career of tenement owning." Rents are still taxed in Berlin.

The vice-consul-general at Paris writes: "In all the large cities of the world one of the most dangerous and intolerable evils is the sanitary condition of cheap tenement-houses, where the very poor are compelled to live. Paris, perhaps, has fared better, as statistics will show, as regards morals, crimes, health and otherwise, in cheap tenement dwellings where two or more families reside, than any of the large cities of the world. Until very recently a law enacted during the first Republic in regard to the construction and use of cheap tenement-houses for artisans has been in force. These buildings are divided into two separate and distinct classes, and are under the strict control and supervision of the *prefet de police*. One class is the cheap, unfurnished apartments where several families reside. The other class is the cheap furnished apartments, also, where a number of families reside. A general board of health emanating from the *prefecture de la Seine*, which is called the *Bureau de la Salubriete Generale*, exercises complete control over these buildings, so far as sanitary condition is concerned. When it is brought to the notice of this board of health, or whenever a complaint is made of some defect in sanitary arrangement of any building that may be dangerous to the health of the inhabitants of the city generally, the board at once orders a thorough investigation made and steps are taken to remedy the evil. The furnished tenement-houses ('*garnies*') are placed under the supervision of a board known as the *Bureau des Garnies*, which also emanates from the *Prefecture de la Seine*. Before any one can let furnished rooms a declaration must be made and filed with this *bureau des garnies*, stating that the building and rooms are in good sanitary condition. In addition to this a medical inspector is sent to examine the building and rooms to ascertain whether they can accommodate the number of people they are destined to receive, and whether in a general way the same are in good sanitary condition. There is also connected with the *prefecture of police* a special medical department called '*La Salubriete*,' which is only a part of the *Bureau des Garnies* or general health department. Upon the report made by the medical inspector in regard to the sanitary condition of any building furnished or unfurnished, the *Bureau des Garnies* gives or-refuses permission to the proprietor to let his rooms. The first step, therefore, necessary, for a landlord to take before he

can rent his rooms is to procure a license or permit from this board. This license can be procured upon the landlord making affidavit that his building is in good, healthy condition. It might be noted that not only the cheap tenement-houses which are occupied by artisans and the poorer class are submitted to this inspection, but all furnished houses, hotels, etc., the highest as well as the lowest, are submitted to a rigid inspection and are under the active control of the Bureau des Garnies. For each and every apartment or furnished room that is let there must be kept by the landlord a full and complete record of all arrivals and departures. Every other day an inspector calls at each house where apartments and rooms are let furnished to inspect the record kept and inquire of any events pertaining to the general sanitary condition that may have occurred within 24 hours in that particular house, or even in the neighborhood. It has been a mooted question whether this inspection should not take place daily instead of every two days, and only the question of increase of the number of inspectors, which necessitates an additional expense, prevented the authorities from having the inspection made daily. There are now 102 inspectors of this kind for Paris. These inspectors have certain districts within the corporate limits of the city of Paris, and make their rounds regularly every two days, and so make their reports. There are no tenement-houses constructed solely for the habitation of workingmen by the city government, but a banking corporation known as the Banque d'Escompte, in Paris, has constructed certain tenement dwellings in a quarter of Paris known as the Buttes Chaumont where manufactories and working establishments are situated, occupied solely by workingmen. These tenement buildings, however, are of rather the best class and are rented to workingmen who can afford to pay a rental of from \$30 to \$40 per month. Of course, these buildings are under the strict supervision of the municipal authorities and are given a close inspection as to their sanitary condition, etc. Each building contains a certain number of flats or separate apartments and are occupied by mechanics with their families."

"A law was passed November 30, 1894, on the subject of tenement-houses and dwellings for workingmen in France. This law authorizes the establishment in every department of one or more committees of cheap tenement-houses.

"The purpose of such committees is to encourage the building of healthy and cheap tenement-houses either by private parties or by corporations, with a view to letting them or selling them, either against cash payment or on annuities, to persons not being house owners, particularly to workmen or employees who may be supporting themselves mainly by their work or by their

salary, or by parties interested in the said associations, for their own personal use.

"These committees may receive subventions from the State on the department or from the 'Commune' as well as gifts and legacies, under the conditions prescribed by article 910 of the Civil Code in regard to establishments of public utility.

"They shall not, however, be allowed to possess any other real estate than what is necessary for their meetings.

"They may make investigation, open competitions, grant prizes for tidiness and cleanliness, give encouragements in a pecuniary form, and more generally use all means of promoting the building and the improving of cheap tenement-houses."

The entire law is given in the report from Paris.

The consul-general at London has sent a full report of the English legislation upon the subject which includes the British "Housing of the Working Classes Act, 1890." (53 and 54 Vict., C. 70.) This is the act under which the local authorities are authorized to condemn land, to destroy the buildings thereupon and either dedicate the same as a highway or open space, appropriate, sell or let the same for the erection of dwellings for the working classes, or exchange the same with other neighboring land which is more suitable for the erection of such dwellings and on exchange will be appropriated, sold or let for such erection. The provisions for the assessment of compensation in case of such condemnation are novel and seem of sufficient importance to warrant the careful consideration by the whole committee as to whether they should be included in any scheme which this committee may recommend for new statutory authority for the destruction of tenement-houses which are in unsanitary condition. These may be found in section 41 of that act, and are as follows:

"§ 41. In all cases in which the amount of any compensation is, in pursuance of this part of this act, to be settled by arbitration, the following provisions shall have effect; namely:

"(1) The amount of compensation shall be settled by an arbitrator to be appointed and removable by the local government board.

"(2) In settling the amount of any compensation —

"(a) The estimate of the value of the dwelling-house shall be based on the fair market value as estimated at the time of the valuation being made of such dwelling-house, and of the several interests in such dwelling-houses, due regard being had to the nature and then condition of the property and the probable duration of the buildings in their existing state, and to the state of repair thereof, and without any additional allowance in respect of compulsory purchase; and

"(b) The arbitrator shall have regard to and make an allowance in respect of any increased value which, in his opinion, will be given to other dwelling-houses of the same owner by the alteration or demolition by the local authority of any buildings.

"(3) Evidence shall be receivable by the arbitrator to prove.—

"(Firstly) That the rental of the dwelling-house was enhanced by reason of the same being used for illegal purposes or being so overcrowded as to be dangerous or injurious to the health of the inmates; or,

"(Secondly) That the dwelling-house is in a state of defective sanitation, or is not in reasonably good repair; or,

"(Thirdly) That the dwelling-house is unfit, and not reasonably capable of being made fit, for human habitation; and, if the arbitrator is satisfied by such evidence, then the compensation —

"(a) Shall in the first case, so far as it is based on rental, be based on the rental, which would have been obtainable if the dwelling-house was occupied for legal purposes and only by the number of persons whom the dwelling-house was, under all the circumstances of the case fitted to accommodate without such overcrowding as is dangerous or injurious to the health of the inmates; and,

"(b) Shall, in the second case, be the amount estimated as the value of the dwelling-house, if it had been put into a sanitary condition, or into reasonably good repair, after deducting the estimated expense of putting it into such condition or repair; and

"(c) Shall in the third case be the value of the land, and of the materials of the buildings thereon." (Pp. 27 and 28.)

The act further provides in section 50: "Where, in any proceedings under this part of this act, it is necessary to refer to the owner of any dwelling-house, it shall be sufficient to designate him as the 'owner' thereof, without name or further description." The provision for the destruction of material portions of buildings unfit for human habitation are in sections 30-38, inclusive, and are as follows:

"30. It shall be the duty of the medical officer of health of every district to represent to the local authority of that district any dwelling-house which appears to him to be in a state so dangerous or injurious to health as to be unfit for human habitation.

"31. (1) If, in any district, any four or more householders living in or near to any street, complain in writing to the medical officer of health of that district that any dwelling-house in or near that street is in a condition so dangerous or injurious to health as to be unfit for human habitation, he shall forthwith inspect the same, and transmit to the local authority the said

complaint, together with his opinion thereon, and if he is of opinion that the dwelling-house is in the condition aforesaid, shall represent the same to the local authority, but the absence of any such complaint shall not excuse him from inspecting any dwelling-house and making a representation thereon to the local authority.

“(2) If, within three months after receiving the said complaint and opinion or representation of the medical officer, the local authority, not being in the administrative county of London, or not being a rural sanitary authority in any other county, declines or neglects to take any proceedings to put this part of this act in force, the householders who signed such complaint may petition the local government board for an inquiry, and the said board, after causing an inquiry to be held, may order the local authority to proceed under this part of this act, and such order shall be binding on the local authority.”

CLOSING ORDER AND DEMOLITION. †

“32. (1) It shall be the duty of every local authority to cause to be made, from time to time, inspection of their district, with a view to ascertain whether any dwelling-house therein is in a state so dangerous or injurious to health as to be unfit for human habitation, and, if on the representation of the medical officer, or of any officer of such authority, or information given, any dwelling-house appears to them to be in such state, to forthwith take proceedings against the owner or occupier for closing the dwelling-house under the enactments set out in the third schedule to this act.

“(2) Any such proceedings may be taken for the express purpose of causing the dwelling-house to be closed, whether the same be occupied or not, and upon such proceedings the court of summary jurisdiction may impose a penalty not exceeding 20 pounds, and make a closing order, and the forms for the purposes of this section may be those in the fourth schedule to this act, or to the like effect, and the enactments respecting an appeal from a closing order shall apply to the imposition of such penalty as well as to a closing order.

“(3) Where a closing order has been made as respects any dwelling-house, the local authority shall serve notice of the order on every occupying tenant of the dwelling-house, and within such period as is specified in the notice, not being less than seven days after the service of the notice, the order shall be obeyed by him, and he and his family shall cease to inhabit the dwelling-house, and in default he shall be liable to a penalty not exceeding 20 shillings a day during his disobedience to the order. Provided

that the local authority may make to every such tenant such reasonable allowance on account of his expenses in removing as may have been authorized by the court making the closing order, which authority the court is hereby authorized to give, and the amount of the said allowance shall be a civil debt due from the owner of the dwelling-house to the local authority, and shall be recoverable summarily.

"33 (1) Where a closing order has been made in respect of any dwelling-house, and not been determined by a subsequent order, then the local authority, if of opinion that the dwelling-house has not been rendered fit for human habitation, and that the necessary steps are not being taken with all due diligence to render it so fit, and that the continuance of any building being or being part of the dwelling-house is dangerous or injurious to the health of the public or of the inhabitants of the neighboring dwelling-houses, shall pass resolution that it is expedient to order the demolition of the building.

"(2) The local authority shall cause notice of such resolution to be served on the owner of the dwelling-house, and such notice shall specify the time and place appointed by the local authority for the further consideration of the resolution, not being less than one month after the service of the notice, and any owner of the dwelling-house shall be at liberty to attend and state his objections to the demolition.

"(3) If upon the consideration of the resolution and the objections the local authority decide that it is expedient so to do, then, unless an owner undertakes to execute forthwith the works necessary to render the dwelling-house fit for human habitation, the local authority shall order the demolition of the building.

"(4) If an owner undertakes as aforesaid to execute the said works, the local authority may order the execution of the works, within such reasonable time as is specified in the order, and if the works are not completed within that time or any extended time allowed by the local authority or a court of summary jurisdiction, the local authority shall order the demolition of the building.

"34. (1) Where an order for the demolition of the building has been made, the owner thereof shall within three months after service of the order proceed to take down and remove the building, and if the owner fails therein the local authority shall proceed to take down and remove the building and shall sell the materials, and after deducting the expenses incident to such taking down and removal, pay over the balance of money (if any) to the owner.

"(2) Where a building has been so taken down and removed, no house or other building or erection which will be dangerous

or injurious to health shall be erected on all or any part of the site of such building; and if any house, building, or erection is erected contrary to the provisions of this section, the local authority may at any time order the owner thereof to abate the same, and in the event of noncompliance with the order, may at the expense of the owner abate or alter the same."

"35. (1) Any person aggrieved by an order of the local authority under this part of this act, may appeal against the same to a court of quarter sessions, and no work shall be done nor proceedings taken under any order until after the appeal is determined or ceases to be prosecuted; and section 31 of the summary jurisdiction act, 1879, respecting appeals from courts of summary jurisdiction to courts of quarter sessions shall apply with the necessary modifications as if the order of the local authority were an order of a court of summary jurisdiction."

"(2) Provided that:

"(a) Notice of appeal may be given within one month after notice of the order of the local authority has been served on such person;

"(b) The court shall, at the request of either party, state the facts specifically for the determination of a superior court, in which case the proceedings may be removed into that court.

"36. (1) Where any owner has completed in respect of any dwelling-house any works required to be executed by an order of a local authority under this part of this act, he may apply to the local authority for a charging order, and shall produce to the local authority a certificate of their surveyor or engineer that the works have been executed to his satisfaction, and also the accounts of and vouchers for the cost, charges and expenses of the works, and the local authority, when satisfied that the owner has duly executed such works and of the amount of such costs, charges and expenses, and of the cost of obtaining the charging order which have been properly incurred, shall make an order accordingly, charging on the dwelling-house an annuity to repay the amount.

"(2) The annuity charged shall be a sum of six pounds for every 100 pounds of the said amount and so in proportion for any less sum, and shall commence from the date of the order, and be payable for a term of 30 years to the owner named in such order, his executors, administrators, or assigns.

"(3) Every such annuity may be recovered by the person for the time being entitled to it by the same means and in the like manner in all respects as if it were a rent-charge granted by deed out of the dwelling-house by the owner thereof.

"(4) Charging orders made under this section shall be made according to the form marked A in the fifth schedule to this

act, or as near thereto as the circumstances of the case will admit.

"37. (1) Every charge created by a charging order under this part of this act shall be a charge on the dwelling-house specified in the order, having priority over all existing and future estates, interests, and incumbrances, with the exception of quit-rents and other charges incident to tenure, tithe commutation, rent charge, and any charge created under any act authorizing advances of public money; and where more charges than one are charged under this part of this act on any dwelling-house such charges shall, as between themselves, take order according to their respective dates.

"(2) A charging order shall be conclusive evidence that all notices, acts, and proceedings by this part of this act directed with reference to or consequent on the obtaining of such order, or the making of such charge, have been duly served, done and taken, and that such charge has been duly created, and that it is a valid charge on the dwelling-house declared to be subject thereto.

"(3) Every such charging order, if it relates to a dwelling-house in the area to which the enactments relating to the registration of land in Middlesex apply or to a dwelling-house in Yorkshire, shall be registered in like manner as if the charge were made by deed by the absolute owner of the dwelling-house.

"(4) Copies of the charging order and of the certificate of the surveyor or engineer, and of the accounts as passed by the local authority, certified to be true copies by the clerk of the local authority, shall, within, six months after the date of the order be deposited with the clerk of the peace of the county in which the dwelling-house is situate, and be, by him, filed and recorded.

"(5) The benefit of any such charge may be from time to time transferred in like manner as a mortgage or rent-charge may be transferred. Any transfer may be in the form marked B in the fifth schedule to this act, or in any other convenient form.

OBSTRUCTIVE BUILDINGS.

"38. (1) If a medical officer of health finds that any building within his district, although not in itself unfit for human habitation, is so situate that by reason of its proximity to or contact with any buildings it causes one of the following effects, that is to say:

"(a) It stops ventilation, or otherwise makes or conduces to make such other buildings to be in condition unfit for human habitation or dangerous or injurious to health; or

"(b) It prevents proper measures from being carried into effect for remedying any nuisance injurious to health or other

evils complained of in respect of such other buildings; in any such case, the medical officer of health shall represent to the local authority, the particulars relating to such first-mentioned building (in this act referred to as 'obstructive building') stating that, in his opinion, it is expedient that the obstructive building be pulled down.

"(2) Any four or more inhabitant householders of a district may make to the local authority of the district a representation as respects any building to the like effect as that of the medical officer under this section.

"(3) The local authority on receiving any such representation as above in this section mentioned shall cause a report to be made to them respecting the circumstances of the building and the cost of pulling down the building and acquiring the land, and on receiving such report shall take into consideration the representation and report, and if they decide to proceed, shall cause a copy of both the representation and report to be given to the owner of the lands on which the obstructive building stands, with notice of the time and place appointed by the local authority for the consideration thereof; and such owner shall be at liberty to attend and state his objections, and after hearing such objections the local authority shall make an order either allowing the objection or directing that such obstructive building shall be pulled down, and such order shall be subject to appeal in like manner as an order of demolition of the local authority under the foregoing provisions of this part of this act.

"(4) Where an order of the local authority for pulling down an obstructive building is made under this section and either no appeal is made against the order, or an appeal is made and either fails or is abandoned, the local authority shall be authorized to purchase the lands on which the obstructive building is erected in like manner as if they had been authorized by a special act to purchase the same; and for the purpose of such purchase the provisions of the lands clauses acts, with respect to the purchase and taking of lands otherwise than by agreement shall be deemed to be incorporated in this part of this act (subject nevertheless to the provisions of this part of this act), and for the purpose of the provisions of the lands clauses acts this part of this act shall be deemed to be the special act, and the local authority to be the promoters of the undertaking, and such lands may be purchased at any time within one year after the date of the order, or if it was appealed against after the date of the confirmation.

"(5) The owner of the lands may within one month after notice to purchase the same is served upon him declare that he desires to retain the site of the obstructive building and undertake either to pull down or to permit the local authority to pull down the obstructive building, and in such case the owner shall retain the site and shall receive compensation from the local authority for the pulling down of the obstructive building.

"(6) The amount of such compensation, and also the amount of any compensation to be paid on the purchase of any lands under this section, shall in case of difference be settled by arbitration in manner provided in this part of this act.

"(7) Where the local authority is empowered to purchase land compulsorily, it shall not be competent for the owner of a house or manufactory to insist on his entire holding being taken, where part only is proposed to be taken as obstructive, and where such part proposed to be taken can, in the opinion of the arbitrator to whom the question of disputed compensation is submitted, be severed from the remainder of the house or manufactory without material detriment thereto, provided that compensation may be awarded in respect of the severance of the part so proposed to be taken in addition to the value of that part.

"(8) Where in the opinion of the arbitrator the demolition of an obstructive building adds to the value of such other buildings as are in that behalf mentioned in this section, the arbitrator shall apportion so much of the compensation to be paid for the demolition of the obstructive buildings as may be equal to the increase in value of the other buildings amongst such other buildings respectively, and the amount apportioned to each such other building in respect of its increase in value by reason of the demolition of such obstructive building shall be deemed to be private improvement expenses incurred by the local authority in respect to such building, and such local authority may, for the purpose of defraying such expenses, make and levy improvement rates on the occupier of such premises accordingly; and the provisions of the public health acts relating to private improvement expenses and to private improvement rates, shall so far as circumstances admit, apply accordingly in the same manner as if such provisions were incorporated in this act.

"(9) If any dispute arises between the owner or occupier of any building (to which any amount may be apportioned in respect of private improvement expenses) and the arbitrator by whom such apportionment is made, such dispute shall be settled by two justices in manner provided by the lands clauses acts, in cases where the compensation claimed in respect of lands does not exceed 50 pounds.

"(10) Where the owner retains the site or any part thereof, no house or other building or erection which will be dangerous or injurious to health, or which will be an obstructive building within the meaning of this section, shall be erected upon such site or any part thereof; and if any house, building or erection is erected on the site contrary to the provisions of this section the local authority may at any time order the owner to abate or alter the said house, building or erection; and in the event of noncompliance with such order may, at the expense of the owner thereof, abate or alter the same.

"(11) Where the lands are purchased by the local authority the local authority shall pull down the obstructive building, or such part thereof as may be obstructive within the meaning of this section, and keep as an open space the whole site, or such part thereof as may be required to be kept open for the purpose of remedying the nuisance or other evils caused by such obstructive building, and may, with the assent of the local government board, and upon such terms as that board think expedient, sell such portion of the site as is not required for the purpose of carrying this section into effect.

"(12) A local authority may, where they so think fit, dedicate any land acquired by them under the authority of this section as a highway or other public place."

The report states that under the provisions of this and a former act of similar character, the city of London has cleared away two large spaces, one called the "Petty Court Square Site" at the extreme east of the city, and the other called the "Golden Lane Site" at the extreme north. On the first space 164 tenements were demolished, 79,198 square feet of land were cleared, and streets and sewers were reconstructed and model dwellings, some with shops on the ground floor, were built. These were completed in 1885. The entire cost of condemnation and reconstruction amounted to £201,415 and buildings comprising five blocks, each 30 feet wide, 58 feet high and from 158 to 221 feet long were constructed. They are provided with open landings, washhouses, drying places, sculleries, water-closets, water and gas. The scale of rents are: For a shop with two rooms and basement, from 28 to 30 shillings a week; for a shop with one room and basement, 23 shillings a week; for a tenement with three rooms, 9 shillings a week; for a tenement of two rooms, 7 shillings a week; for a tenement of one room, 4 shilling a week. The gross rental is £6,000 a year. Plans of these buildings are submitted with this report and seem more appropriate for the consideration of the subcommittee of buildings.

The Peabody Trust, the Guinness Trust, the Metropolitan Association, the Improved and Industrial Dwellings Company, the

Artisans and Laborers' and General Dwellings Company, and a large number of smaller companies and individuals, have built and own other improved dwellings for the working people and the poor in and about London. The statistics show a less death-rate and a slightly increased birth-rate in these artisans' dwellings, as compared with the general death and birth-rate in London. Illegitimate births in these buildings are few. Crime has been diminished in the area which they occupy. This report also contains the building regulations approved by the London county council for the construction of tenements, which seem to be more appropriate for the consideration of the subcommittee on buildings. It is also accompanied by the report of the royal commission to inquire into the housing of the working classes made to the queen in 1885, together with a full report of the testimony then taken. The report states that "tenement-houses may be roughly said to be houses which are occupied at weekly rents by members of more than one family, but in which members of more than one family do not occupy a 'common room.'" (P. 8.) A large portion of the report and testimony is occupied by a consideration of the subject of overcrowding in a single room of persons of both sexes, and the consequent injury to health and property. This is an evil much more prevalent in Great Britain than in the United States. In 1871, in Glasgow, 41 families out of every 100 lived in houses or apartments having only one room. In 1881, 24 per cent. of the population of Glasgow lived in similar quarters. The report further shows that at that time in London the arbitrators had made extravagant and excessive awards for the condemnation of unsanitary buildings and excessive costs had been taxed for legal expenses. They quote, at page 45, the amendment in the act of 1879 to the Artisans Dwellings Act of 1875, as follows: "On the occasion of assessing the compensation payable under any improvement scheme in respect of any house or premises situate within an unhealthy area, evidence shall be receivable by the arbitrator to prove that, at the date of the confirming act authorizing such scheme, or at some previous date not earlier than the date of the official representation in which the scheme originated, such house or premises was, by reason of its unhealthy state or by reason of overcrowding or otherwise, in such a condition as to have been a nuisance within the meaning of the acts relating to nuisances; and if the arbitrator is satisfied that, from either of such causes as aforesaid, such house or premises was at such dates as aforesaid, or either of them, a nuisance as aforesaid, he shall then determine what would have been the value of such house or premises, supposing the nuisance to

have been abated, and what would have been the expense of abating the nuisance, and the amount of compensation payable in respect of such house or premises shall be an amount equal to the estimated value of the house or premises after the nuisance was abated and after deducting the estimated expense of abating the nuisance," and say, "This, however, does not give sufficient help. The ordinary case is of a house which is a nuisance and dangerous to health. Under that provision there would have to be deducted from the value of the house the cost of putting it into sanitary repair; but then the arbitrator will sometimes not be content to give the value of the house as it stood, and for the purposes for which it was then used; he will take into account the probability that that house, or the land upon which it stands, may subsequently be used for other purposes, such as factories, warehouses, new streets, or something of that kind; and the value given, therefore, is often something altogether different from and out of proportion to the value, if the property be regarded in connection with its existing uses.

"There are arbitrators who seem not to exclude from their minds the improvement of the property that would be due to the scheme itself, and give a prospective value to the unhealthy property in consequence of their impression that it would be increased in value when the improvement was effected." (Pp. 45-46.) "Arbitrators and juries have, it is stated, a natural tendency to award excessive compensation when they have the public purse or the rates to draw upon. The districts to be dealt with, moreover, are generally crowded, and as has been seen rents are consequently driven up, and there is again the multiplicity of interests involved between those of the ground landlord and those of the actually occupying tenants. Even with the repeal of the words 'and all circumstances affecting such value,' it does not seem likely that arbitrators with the discretion still allowed them would assess the compensation to all the persons interested as if the property were in the hands of one person, though theoretically that rate ought to be adopted; and the law also requires strengthening by 'a recognition that compensation should only be calculated on the base of the capacity of a house and not on the numbers actually living in it, inasmuch as overcrowding at present puts a premium on property.'" (P. 46.)

"Your majesty's commissioners, in the course of their inquiry, elicited a great deal of evidence which proved the fact that immense sums of money are, in connection with improvements, yearly sunk in legal expenses. Mr. Forwood stated that the £72,000 which was paid in compensation for 635 unsanitary houses at Liverpool was out of all proportion to what the owners

were morally entitled to; but the sum of £10,000 paid to lawyers for their legal charges in connection with the same transactions is a much more suprising figure. When details come to be examined the large figures are less to be wondered at. Sir Curtis Lampson testified that no sooner is a property condemned than local solicitors call upon the people who have houses and propose to them to manage the business for them. He mentioned the case of a condemned house, valued at £20, where the solicitors' charges amounted to £57." (P. 48.)

The consul of the United States at Liverpool has also sent a full answer to our inquiries. He encloses in his report a copy of the by-laws of the borough of Liverpool, containing regulations of houses and parts of houses which are let in lodgings or occupied by more than one family. He states that the practical effect of the operation in Liverpool of the British housing of the working classes acts and the by-laws upon the subject has been to improve morals, and health, and greatly decrease the crime previously prevalent among the people inhabiting tenement-houses. He is unable, however, to furnish any data showing the change in the death-rate, number of illegitimate births and crimes in the districts of Liverpool thereby affected since the passage of these laws and ordinances. He refers, in the description of the destruction of tenement-houses and artisans' dwellings at the expense of the city of Liverpool, to the report of his predecessor, Mr. Sherman, published in the Consular Reports, June, 1890, No. 117. He furnishes a copy of the testimony at a hearing before the local government board upon the application by the town council of Liverpool for sanction to borrow £25,000 for the purchase of insanitary dwellings and areas, in June, 1894. It appears in that report (p. 2) that: "It has been the policy of the insanitary property committee rather to sell the land which formed the sites of the houses to builders, under stipulations which would insure the building of suitable dwellings, than enter into the somewhat speculative operation of building houses or dwellings at the expense of the corporation." (P. 3.) "Up to about four or five years ago, we had considerable difficulty in selling these building sites, but now our difficulty is rather the other way. We have more applications for sites for buildings than we are able to meet, and in some cases we have been obliged to keep back the builder until we could get legal difficulties in connection with the details out of the way. We have very little land left on our hands, and there is no land available at the present time for the erection of more than a very few four-roomed cottages." (P. 4.) "Our policy has been to work with the medical officer. To get him from time to time to select a number of the

worst houses in the city, taking them from different parts of the city, but at the same time concentrating them as much as possible in two or three localities, so as to get, if possible, the whole of one street or two streets, and take away the whole of the insanitary property within that street or streets. In that way the committee were able to dispose of the sites to builders, which we should not be able to do if the medical officer only selected the worst courts in a street, and left in that street still standing a number of insanitary houses with their very undesirable tenants. The consequence of this policy has been that during the last four or five years we have been able to get around us a number of builders who are willing to take our land, and to build upon it what we call four-roomed cottages. These cottages have about the same accommodations in them as the court houses which we pull down." The town clerk testified that before the housing of the Working Classes Act of 1884, the borough under its general powers used to buy single houses in different parts of the city for the purpose of improving the health of the vicinity, and that the scheme proved impracticable (p. 8) : "That was only touching the fringe of the matter. We have bought a single house to remove an ash-pit. We have bought from an owner a house at an enormous sum, and we have pulled down the house at a further expense, in order to erect two water-closets, and all this for the benefit of the owners of the court, who were also compensated by the improvement of their property. It was found out in time, however, that that did no good at all. The first £100,000 we borrowed went in that way." "I have known £110 and legal expenses to have been paid for one house." The criticisms upon the methods of the corporation which were stated at the inquiry were that the new houses were filled chiefly by people from other parts of the city or its vicinity and not by the former inhabitants of the same area, who crowded into old houses in other parts of the city; that (p. 20) "The action of the corporation in pulling down these houses creates a want of security on the part of the owners, who are never sure when the corporation will pounce down upon them and take their property, and the consequence is that they have not the heart to maintain and keep their property in a state of repair, as they would do if they felt more secure. They pay something like £80, £90 and £100 per house for these so-called insanitary houses and when they are taken from them it is at a nominal sum which seems to be no encouragement to them to spend money and improve the property. What we want to point out is this — if the plan suggested by Mr. Norton was adopted — namely, the dealing with isolated cases and small spaces, one house could be taken down in a court, and it would provide back

yards and separate water-closets. Anyway, it might afford facilities for the corporation selling little strips of land to owners, in order to enable them to put up separate water-closets, and to get that through ventilation, which is so much desired. These houses certainly offer better accommodation for the people than the class of houses that are now being built. I challenge Dr. Hope or Mr. Bartlett to prove that there are eight out of ten occupying these new houses who ever lived in the neighborhood before. It seems to me that although you say that you demolish houses that are insanitary, and provide other houses for those people, you do nothing of the kind, but you provide houses for people who live a mile and a half away from these places. We say that the taxes of the town have increased to a large extent, but the rents of house property have been reduced to an alarming extent, and, if this expenditure goes on, we say that Liverpool with regard to property will be unbearable, the rateable value of property will go down and the corporation and the rate payers will suffer equally."

These objections were made by a real estate agent who appeared with others on behalf of the Liverpool Land and House Owners Association.

The report of the consul at Glasgow contains valuable information and statistics upon the subject, which is there regulated by the Glasgow Building Act of 1892 (55 and 56 Vict. ch. 239), the Glasgow Police Acts of 1886 and 1891 (29 and 30 Vict. ch. 273), and by by-laws upon the subject. It appears that nearly all the inhabitants of Glasgow live in tenements or apartment houses. "There are but few (what are called here) self-contained dwelling-houses, i. e., houses built for the exclusive use of one family; and these are mostly in the suburbs and inhabited by the very wealthy. The houses are generally built in blocks from two to four stories in height, most commonly of three stories, the lower one being a basement from one-half to one-third above the street with an area in front, as deep as the basement, and enclosed by an iron railing. Many of the people are lodgers, taking apartments in these buildings. Most generally a family takes a house and rents out rooms to lodgers. Each story above the basement is called a separate house and these often have separate entrances. Others are entered from a common stair at the back end of a close or open hallway situated in the middle of two tenements." The building regulations are set forth with detail in this report, but they seem more appropriate for the consideration of the subcommittee on buildings. We note, however, the following: "It shall not be lawful in any dwelling-house for any person to make an inclosed bed or bed recess not open in front

for three-fourths of its length, and from floor to ceiling." There must be one window in every sleeping apartment, and that so constructed that one-third may be easily opened, and the sash of the window must not be short of certain specified dimensions. "Every building shall be provided with a window-hatch or hatch-way in the roof, by which, in case of fire, access may be had to the roof from a common stairway or the upper story of the building." "If a dwelling or tenement becomes filthy or lacking in sanitary protection, the same may be declared untenable by the Dean of Guild Court, and the inmates removed; and the same can not thereafter be rented or occupied until repaired and put in proper sanitary condition."

The Glasgow Building Act authorizes the purchase of land by the corporation of Glasgow by agreement of the owners and the sale or leasing of the same or construction thereupon by the corporation itself of dwelling-houses for mechanics, laborers and other working people of the poor classes. The number of the working classes to be displaced by the operation of this act was limited to 500 within any six months, unless suitable accommodations were provided in the meantime. Under these acts, May, 1893, the corporation of Glasgow has expended £1,994,331 (\$9,695,411.80). The revenue derived had been £1,700,411 (\$4,902,565.17), leaving a deficit of £986,919 (\$4,802,841.30). The corporation had then on hand property valued at £545,311 (\$2,653,755.52), which was in the course of reconstruction; together with Alexandra park and 970,162 square yards of ground applied to the formation of 29 new streets and in the improvement of 25 existing streets. The total cost to the taxpayers had been £720,181 (\$3,504,760.83). The new tenements are generally four stories in height with a basement; 35 feet in depth and 70 feet high. The base tenements consist usually of a kitchen and one or two rooms, with an additional bedroom in the attic over the hallway. Single apartments were rented at £9 a year in 1893.

The practical effect of these laws and ordinances has been to improve morals and to diminish crime. The death-rate and number of illegitimate births in the city has decreased and crime has become less prevalent. The great evil in tenement-houses in Glasgow is said to be the crowding of persons of different sexes into the same room.

ROGER FOSTER,
JOHN P. SCHUCHMAN.

SUPPLEMENT No. 20.

Bills Submitted to the Legislature by the Tenement-House Committee of 1894.

No. 1.

AN ACT to amend chapter four hundred and ten of the laws of eighteen hundred and eighty-two, entitled "An act to consolidate into one act and to declare the special and local laws affecting public interests in the city of New York," as subsequently amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, and chapter two hundred and eighty-eight of the laws of eighteen hundred and eighty-seven, and otherwise, in relation to the powers, duties and health fund of the board of health, and of the health department of the city of New York, and for the preservation of the public health.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section two hundred and ninety-six of chapter four hundred and ten of the laws of eighteen hundred and eighty-two, entitled "An act to consolidate into one act and to declare the special and local laws affecting public interests in the city of New York," as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, in relation to the powers, duties and health fund of the board of health, and of the health department of the city of New York, and for the preservation of the public health, is hereby amended so as to read as follows:

§ 296. The board of police, upon the requisition of the board of health, shall detail to the service of the said board of health, for the purpose of the enforcement of the provisions of the sanitary code, and of the acts relating to tenement and lodging-houses [not exceeding forty-five], at least fifty suitable officers, and men of experience of at least five years' service in the police force, provided that the board of health shall pay monthly to the board of police a sum equal to the pay of all officers and men so detailed. At least [fifteen] twenty of the officers and men so detailed shall be employed exclusively in the enforcement of the laws relating to tenement and lodging-houses. These officers and men shall belong to

the sanitary company of police, and shall report to the president of the board of health. The board of health may report back to the board of police for punishment any member of said company guilty of any breach of orders or discipline, or of neglecting his duty, and thereupon the board of police may detail another officer or man in his place, and the discipline of the said members of the sanitary company shall be in the jurisdiction of the board of police, but at any time the board of health may object to the efficiency of any member of said sanitary company, and thereupon another officer or man may be detailed in his place. The board of police shall have the power, and it shall be their duty to fill all vacancies in the police force in the city caused by the detailing of said officers and men upon the requisition of the board of health. And the board of police are hereby authorized and empowered to appoint **[fifteen]** twenty-five additional men to the police force subject to all the law, rules and regulations relating to and governing the appointment of patrolmen in said city; and the officers thus detailed to the service of the said board of health shall be selected for their peculiar fitness from amongst those who shall pass a civil service examination conducted by the supervisory board of commissioners of the New York municipal civil service.

§ 2. Section five hundred and thirty-three of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 533. The authority, duty and powers of the board of health shall extend over the waters of the bay, up to and within the quarantine limits as established by law, but shall not be held to interfere with the powers and duties of the commissioners of quarantine or health officer of the port. It shall be the duty of the board of health to make an annual report to the mayor of the city of New York of all the operations of the said board for the previous year. The mayor may at any time call for a more full report, or for a report upon any portion of the work of said board whenever he may deem it to be for the public good so to do. **[The mayor and one commissioner from the department of health, the commissioner of the department of public works, one delegate from the bureau of inspection of buildings, and the commissioner of the department of street cleaning, shall meet annually, between the fifteenth day of November and the thirtieth day of December, for the purpose of considering the subject of tenement and lodging-houses in the city, and shall make such recommendations of improvement in the laws affecting tenement and lodging-houses as they may deem to be for the good of the people of the city; they shall cause such recom-**

mendations to be sent to the governor of the State and to the senate and assembly annually on or before the fifteenth day of January; they shall also consider the subject of the execution of said laws and shall recommend to the board of health such changes in the same as they may deem to be for the good of the people of the city.]

§ 3. Section five hundred and eighty-eight of said act, as amended by chapters eighty-four and four hundred and eighty-nine of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 588. Said board shall appoint and commission at least thirty-five sanitary inspectors, and shall have power to appoint five additional sanitary inspectors, if it deems that number needful, [said board may appoint and commission such number of "sanitary inspectors" as the board may deem needful, not exceeding forty,] and from time to time prescribe the duties and salaries of each of said inspectors, and the place of their performance (and of all other persons exercising any authority under said board, except as herein specially provided); but twenty of such inspectors shall be physicians of skill and of practical professional experience in said city. The additional sanitary inspectors heretofore duly appointed and commissioned may be included among the sanitary inspectors mentioned in this section, and may continue to act as such without reappointment, but nothing herein contained shall curtail any of the powers vested in the health department by section five hundred and eighty of this act, and the number of sanitary inspectors for whom provision is made in this section shall be exclusive of the special inspectors for whom provision is made in section five hundred and eighty. All of the said inspectors shall have such practical knowledge of scientific or sanitary matters as qualify them for the duties of their office. Each of such inspectors shall, twice in each week, make a written report to said board stating what duties he has performed, and where he has performed them, and also such facts as have come to his knowledge connected with the purposes of this chapter as are by him deemed worthy of the attention of said board, or such as its regulations may require of him; which reports with the other reports herein elsewhere mentioned shall be filed among the records of the said board.

§ 4. Section six hundred and fifty-four of said act is hereby amended so as to read as follows:

§ 654. It shall not be lawful, without a permit from the board of health, to let or occupy, or suffer to be occupied separately as

a dwelling, any vault, cellar, or underground room built or rebuilt after July first, eighteen hundred and sixty-seven, or which shall not have been so let or occupied before said date. It shall not be lawful without such permit to let or continue to be let, or to occupy or suffer to be occupied separately as a dwelling any vault, cellar, basement or room wholly or in part underground, unless the same be in every part thereof at least seven feet in height, measured from the floor to the ceiling thereof, nor unless the same be for, at least, two feet [one foot] of its height above the surface of the street or ground adjoining or nearest to the same, nor unless there be outside of and adjoining the said vault, cellar, room, or basement, and extending along the entire frontage thereof, and upwards from six inches below the level of the floor thereof, up to the surface of the said street or ground an open space of at least two feet and six inches wide in every part, nor unless the same be well and effectually drained by means of a drain, the uppermost part of which is one foot at least below the level of the floor of such vault, cellar, or room, nor unless there is a clear space of not less than one foot below the level of the floor, except where the same is cemented, nor unless there be appurtenant to such vault, cellar, or room, the use of a water-closet or privy, kept and provided as in this title required; nor unless the same have an external window opening of at least nine superficial feet clear of the sash frame, in which window opening there shall be fitted a frame filled in with glazed sashes, at least four and a half superficial feet of which shall be made so as to open for the purpose of ventilation. Provided, however, that in the case of an inner, or back vault, cellar, or room, let or occupied along with a front vault, cellar, or room, as part of the same letting or occupation, it shall be a sufficient compliance with the provisions of this section if the front room is provided with a window as hereinbefore provided, and if the said back vault, cellar or room is connected with the front vault, cellar or room by a door, and also by a proper ventilating or transom window, and, where practicable, also connected by a proper ventilating or transom window, or by some hall or passage communicating with the external air. Provided, always that in any area adjoining a vault, cellar, underground room, or basement there may be steps necessary for access to such vault, cellar, or room, if the same be so placed as not to be over, across, or opposite to the said external window, and so as to allow between every part of such steps and the external wall of such vault, cellar or room, a clear space of six inches at least, and if the rise of said

steps is open; and, provided, further, that over or across any such area there may be steps necessary for access to any building above the vault, cellar or room to which such area adjoins, if the same be so placed as not to be over, across, or opposite to any such external window.

§ 5. Section six hundred and fifty-six of said act is hereby amended so as to read as follows:

§ 656. Every tenement or lodging-house shall have the proper and suitable conveniences or receptacles for receiving garbage and other refuse matters. No tenement or lodging-house, nor any portion thereof, shall be used as a place of storage for any combustible article, or any article dangerous to life or detrimental to health; nor shall any horse, cow, calf, swine, pig, sheep, or goat be kept in said house. After the first day of September, eighteen hundred and ninety-five, no bakery or place of business in which fat is boiled shall be maintained in any tenement-house more than three stories in height, in which more than two families live on one floor, and which is not fireproof. After the first day of September, eighteen hundred and ninety-five, no part of any tenement-house shall be used for the storage of feed, hay or straw. After the first day of September, eighteen hundred and ninety-five, all transoms, windows, doors and other openings leading into halls or into rooms opening into halls from bakeries or places of business in which fat is boiled in the basements, cellars, or on the first floors of all tenement-houses in the city of New York, shall be solidly closed with the same material as the walls or partitions in which the openings exist, so that there shall be no opening between said bakeries or other places of business in which fat is boiled and the other parts of the tenement-house in which the same shall be situated. After the first day of September, eighteen hundred and ninety-five, all transoms and windows opening into halls from any portion of any tenement-house where paint, oil, spirituous liquors or drugs are stored or kept for the purpose of sale, or otherwise, shall be removed and closed up as solidly as the rest of the wall; and all doors leading into any such hall or room from such portion of said tenement-house used as aforesaid, shall be made fireproof.

§ 6. Section six hundred and fifty-seven of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 657. No wallpaper shall be used in any tenement or lodging-house. The wallpaper on the walls and ceilings of any tenement or lodging-house shall be removed within sixty days after the passage of this act; provided, however, that the board of health may, in their discretion, permit wall-paper to be used in an apartment-house more than twenty-five feet in width, or in a house in which not more than one family occupy the same floor, or in any apartment containing more than three rooms. Every tenement or lodging-house, and every part thereof, shall be kept clean and free from any accumulations of dirt, filth, garbage or other matter in or on the same, or in the yard, court, passage, area or alley connected with it or belonging to the same. The owner or keeper of any lodging-house, and the owner or lessee of any tenement-house or part thereof, shall thoroughly cleanse all the rooms, passages, stairs, floors, windows, doors, walls, ceilings, privies, cess-pools and drains of the house or part of the house of which he is the owner or lessee, to the satisfaction of the board of health, so often as he shall be required by or in accordance with any regulation or ordinance of said board, and shall well and sufficiently, to the satisfaction of the said board, whitewash the walls and ceilings thereof twice at least in every year, in the months of April and October, unless the said boards shall otherwise direct. Every owner of a tenement or lodging-house, and every person having control of a tenement or lodging-house, shall file annually in the department of health a notice containing his name and address, and also a description of the property by street, number, or otherwise, as the case may be, in such manner as will enable the board of health easily to find the same; and also the number of apartments in each house, the number of rooms in each apartment, the number of families occupying each department, and the trades and occupations carried on therein. In case of a transfer of any tenement-house or lodging-house, it shall be the duty of the grantor and grantee of said tenement or lodging-house to file in the department of health a notice of such transfer, stating the name of the new owner within thirty days after such transfer. In case of the devolution of said property by will, it shall be the duty of the executor and of the devisee, if more than twenty-one years of age, and in case of the devolution of such property by inheritance without a will, it shall be the duty of the heirs, or in case all of the heirs are under age it shall be the duty of the guardians of such heirs, and in case said heirs have no guardians it shall

be the duty of the administrator of the deceased owner of said property to file in said department a notice stating the death of the deceased owner and the names of those who have succeeded to his interest in said property, within thirty days after the death of said decedent in case he died intestate, and within thirty days after the probate of his will if he died testate. A failure to file such notice shall make said property and the owners thereof liable to a penalty of ten dollars a day, after the said thirty days have expired, until said notice is filed. Said penalty may be collected in the manner prescribed in section six hundred and sixty-five of this act. Every person claiming to have an interest in any tenement or lodging-house may file his name and address in the department of health. All notices and orders of the board of health required by law to be served in relation to a tenement or lodging-house shall be served by posting in some conspicuous place in the house, a copy of the notice or order, five days before the time for doing the thing in relation to which said notice or order was issued. The posting of a copy of an order or notice, in accordance with this section, shall be sufficient service upon the owner of the property affected. It shall be the duty of the board of health to cause a copy of every such notice or order to be mailed on the same day that it is posted in the house, addressed to the name and address of each person who has filed with the department of health the notice provided for in this section.

§ 7. Section six hundred and fifty-nine of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 659. Whenever it shall be certified to the board of health of the health department of the city of New York by the sanitary superintendent, that any building or any part thereof in the city of New York is infected with contagious disease, or by reason of want of repair has become dangerous to life, or is unfit for human habitation because of defects in drainage, plumbing, ventilation, or the construction of the same, or because of the existence of a nuisance on the premises and which is likely to cause sickness among its occupants, the said board of health may issue an order requiring all persons therein to vacate such building or part thereof for the reasons to be stated therein as aforesaid. Said board shall cause said order to be affixed conspicuously in the building or part thereof and to be personally served on the owner, lessee, agent, occupant or any person having the charge or care thereof; if the owner, lessee or agent can not be found in the city of New York or do not reside therein or

evade or resist service, then said order may be served by depositing a copy thereof in the post-office in the city of New York, properly inclosed and addressed to such owner, lessee or agent at his last known place of business or residence, and prepaying the postage thereon; such building or part thereof shall within ten days after said order shall have been posted and mailed as aforesaid or within such shorter time not less than twenty-four hours, as in said order may be specified, be vacated, but said board whenever it shall become satisfied that the danger from said building or part thereof has ceased to exist, or that said building has been repaired so as to be habitable, may revoke said order. Whenever in the opinion of the board of health of the health department of the city of New York, any building or part thereof in the city of New York, an order to vacate which has been made by said board, is, by reason of age, defects in drainage, plumbing, infection with contagious disease, ventilation, or the construction of the same, or because of the existence of a nuisance on the premises, which is likely to cause sickness among its occupants or among the occupants of other property in the city of New York, or because it stops ventilation in other buildings, or otherwise makes or conduces to make other buildings adjacent to the same unfit for human habitation, or dangerous or injurious to health; or because it prevents proper measures from being carried into effect for remedying any nuisance injurious to health or other sanitary evils in respect of such other buildings so unfit for human habitation that the evils in or caused by said building can not be remedied by repairs or in any other way except by the destruction of said building or of a portion of the same, said board of health may institute proceedings in the supreme court in the county of New York for the condemnation of said building. Said proceedings shall be instituted and carried on in the manner prescribed by title one of chapter twenty-three of the code of civil procedure, except as modified by this act. Upon the institution of said proceedings, the owner of said building or any person interested therein may in his answer dispute the necessity of the destruction of said building or part thereof as the case may be. In such case, the court shall not appoint commissioners unless proof is made of

the necessity of said destruction. In such proceeding evidence shall be receivable by the commissioners to prove:

1. That the rental of the building was enhanced by reason of the same being used for illegal purposes or being so overcrowded as to be dangerous or injurious to the health of the inmates; or

2. That the building is in a state of defective sanitation, or is not in reasonably good repair; or

3. That the building is unfit, and not reasonably capable of being made fit, for human habitation; and, if the commissioners are satisfied by such evidence, then the compensation

(a) Shall, in the first case, so far as it is based on rental, be based on the rental of the building, as distinct from the ground rent, which would have been obtainable if the building was occupied for legal purposes and only by the number of persons whom the building was, under all the circumstances of the case, fitted to accommodate without such overcrowding as is dangerous or injurious to the health of the inmates; and

(b) Shall, in the second case, be the amount estimated as the value of the building if it had been put into a sanitary condition, or into reasonably good repair, after deducting the estimated expense of putting it into such condition or repair; and

(c) Shall, in the third case, be the value of the materials of the buildings.

Nothing in this section contained shall repeal any part of section five hundred and thirty-five of this act or impair any of the powers thereby vested in the board of health.

§ 8. Section six hundred and sixty-one of said act, as amended by chapters eighty-four and two hundred and eighty-eight of the laws of eighteen hundred and eighty-seven, and chapter two hundred and thirty-eight of the laws of eighteen hundred and ninety-two, is hereby amended so as to read as follows:

§ 661. It shall not be lawful to erect for, or convert to the purposes of a tenement or lodging-house, a building on any lot where there is another building on the same lot, or to build, or to erect any building on any lot whereon there is already a tenement or lodging-house, unless there is a clear open space exclusively belonging thereto, and extending upward from the ground of at least ten feet between said buildings if they are one story high above the level of the ground; if they are two stories high, the distance between them shall not be less than fifteen feet, if they are three stories high, the distance between them shall not be

less than twenty feet; if they are more than three stories high, the distance between them shall not be less than twenty-five feet [but when thorough ventilation of such open spaces can be otherwise secured, such distances may be lessened or modified in special cases by a permit from the board of health.] At the rear of every building hereafter erected for or converted to the purposes of a tenement or lodging-house on any lot, there shall be and remain a clear open space of not less than ten feet between it and the rear end of the lot, [but this provision may be modified as to corner lots and may be changed or modified as to lodging-houses in special cases by a permit from the board of health]. No one continuous building shall be built for or converted to the purposes of a tenement or lodging-house in the city of New York, upon an ordinary city lot, and no existing tenement or lodging-house shall be enlarged or altered, or its lot be diminished so that it shall occupy more than [sixty-five] seventy per centum of the said lot, and in the same proportion if the lot be greater or less in size than twenty-five feet by one hundred feet; but this provision shall not apply to corner lots [and may be modified or changed in special cases as to lodging-houses by a permit from the board of health] in which, however, no such building shall occupy more than ninety per centum of a lot. In computing the amount of the lot covered by a building, any shaft or court of less than twenty-five square feet in area shall be considered as part of the building and not as part of the free-air space. No shaft or court hereafter constructed in a tenement-house except elevator shafts or staircase wells, shall be covered with a roof, skylight or otherwise. The walls of all shafts or courts hereafter constructed in tenement-houses shall be fireproof. In all tenement-houses hereafter constructed or buildings hereafter converted to the purposes of a tenement-house the floor over the cellar or basement, if there be no cellar, shall contain no openings into the first floor but there shall be a continuous fireproof floor constructed with iron or steel beams and arches of masonry; an open area shall be constructed from the level of the cellar to the sidewalk in front of and extending the full width of such houses which shall contain a staircase to give access to the cellar from the street. Provided, however, that these provisions concerning the openings in and access to cellars and basements shall not apply to fireproof structures; nor shall they apply to buildings not more than twenty-five feet in width, which are not more than five

stories high above the cellar, and which contain not more than one suite of rooms on a floor. The dumb-waiters and elevators or lifts in all tenement-houses hereafter constructed or buildings hereafter converted to the purposes of a tenement-house which are not fireproofed, shall be located on the exterior walls and shall have no opening into the cellar and shall be separated from the cellar by solid brick walls, and shall be separated from the other stories of said houses by fireproof walls. The openings to the elevators or lifts in the stories above the cellar shall be provided with fireproof doors hung to metal frames. This provision, however, shall not apply to elevators which are operated by a conductor stationed within the car; but if such elevators run to the cellar, they must be enclosed in the cellar with fireproof walls, and the door to the cellar, if any, must be fireproof, hung in a metal frame and self-closing. In all tenement-houses hereafter constructed or buildings hereafter converted to the purposes of a tenement-house all partitions constructed of wooden supports and lath and plaster shall be solid or filled in solid; all staircases shall be fireproof; but this provision as to staircases shall not apply to buildings not more than twenty-five feet wide, which are not over five stories high above the cellar and which contain but one suite of rooms on a floor. No fan-light or window shall be hereafter placed in the partition or interior wall between the hall of any tenement-house which is not fireproof and any room in the same; and no such fan-light or window shall be allowed in any building hereafter converted to the purposes of a tenement-house. In all tenement-houses hereafter constructed and buildings hereafter converted to the purposes of a tenement-house each room must have a separate window opening into the outer air; each water-closet must have a window opening into the outer air; the floor of each water-closet must be made waterproof with asphalt, cement, tile, metal or some other waterproof material; and such waterproofing must extend at least six inches above the floor so that said floor can be washed or flushed out without leaking. No building or premises occupied for a tenement-house shall be used for a lodging-house, private school, stable or for the storage and handling of rags, but the board of health may by a special permit, allow the main-

tenance of a private school in such a house, [unless with a permit in writing from the board of health; but nothing herein contained shall be construed to apply to a building or premises so used for a stable prior to January first, eighteen hundred and ninety-two.] In case of any violation of the provisions of this section, or of any failure to comply with or of any violation of the terms and conditions of the plan for such tenement or lodging-house approved by the [said board of health] department of buildings or of the conditions of the permit granted by the [board of health] department of buildings for such house, or for the air, light and venulation of the same, any court of record, or any judge or justice thereof shall have power, at any time after service of notice of violation, or of non-compliance, upon the owner, builder or other person superintending the building or converting of any such house, upon proof by affidavit of any violation or non-compliance as aforesaid, or that a plan for light and ventilation of such house has not been approved by the [board of health] department of buildings, to restrain by injunction order, in an action by the health department, or department of buildings, of the further progress of any violation as aforesaid. No undertaking shall be required as a condition of granting an injunction, or by reason thereof.

§ 9. Section six hundred and sixty-three of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 663. Every such house erected after May fourteenth, eighteen hundred and sixty-seven, or converted, shall have adequate chimneys running through every floor, with an open fireplace or grate, or place for a stove, properly connected with one of said chimneys for every family set of apartments. It shall have proper conveniences and receptacles for ashes and rubbish. It shall have Croton or other water furnished in sufficient quantity at one or more places on each floor, occupied or intended to be occupied by one or more families; and all tenement-houses shall be provided with a like supply of water by the owners thereof, whenever they shall be directed so to do by the board of health. But a failure in the general supply of water by the city authorities shall not be construed to be a failure on the part of such owner, provided that proper and suitable appliances to receive and distribute such water are placed in said house. Provided that the board of health shall see to it that all tenement-houses are so supplied before January first, eighteen hundred and eighty-nine. Every tenement-house shall have the floor of the cellar made watertight, and the ceiling plastered; and when the house is located

over filled-in ground, or over marshy ground, or ground on which water lies, the cellar floor shall be covered so as to effectually prevent evaporation or dampness. It shall be the duty of the board of health that the cellars of all tenement-houses are so made or altered as to comply with this section before January first, eighteen hundred and ninety. Every such house erected after May seventh, eighteen hundred and eighty-seven, or converted, shall have the halls on each floor open directly to the external air, with suitable windows, and shall have no room or other obstruction at the end, unless sufficient light or ventilation is otherwise provided for in said halls in a manner approved by the board of health. The owner or lessee of every tenement or lodging-house in the city of New York shall keep a light burning in the hallway upon each floor of said house from sunset until ten o'clock at night throughout the year. In every tenement-house in the said city in which there is a hallway or hallways with no window opening from such hallway outside of said house, a light shall be maintained by said owner or lessee in each such hallway between the hours of eight o'clock in the morning and ten o'clock at night of each day. The fire department of the city of New York is hereby vested with authority to prescribe reasonable regulations concerning such precautions as may be necessary to prevent danger from fire arising from such lights.

§ 10. Section six hundred and sixty-four of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 664. Whenever it shall be certified to the board of health by the sanitary superintendent that any tenement-house or room therein is so overcrowded that there shall be afforded less than six hundred cubic feet of air to each occupant of such building or room, the said board [may] shall [if it deems the same to be wise or necessary] issue an order requiring the number of occupants of such building or room to be reduced, so that the inmates thereof shall not exceed one person to each six hundred cubic feet of air space in such building or room. Changes to apply to cases of "insufficient ventilation," and to four hundred cubic feet for each adult and two hundred for each child under twelve years of age. Whenever there shall be more than eight families living in any tenement-house, in which the owner thereof does not reside, there shall be a janitor, housekeeper or some other responsible person, who shall reside in the said house, and have charge of the same, if the board of health shall so require.

§ 11. Section six hundred and sixty-five of said act is hereby amended so as to read as follows:

§ 665. Every owner or other person violating any provision of this title shall be guilty of a misdemeanor, punishable by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment for not more than ten days for each and every day that such violation shall continue, or by both such fine and imprisonment, in the discretion of the court. He shall also be liable to pay a penalty of ten dollars for each and every day that such offense shall continue. Such penalty may be sued for and recovered by the board of health, and when recovered shall be paid over to the city chamberlain and become part of the tenement-house fund, directed by section one hundred and ninety-four, subdivision nine, of this act, to be annually appropriated to the credit of the health department and to be expended by the board of health. In every proceeding for a violation of this title, and in every such action for a penalty, it shall be the duty of the owner of the house to prove the date of its erection or conversion to its existing use, if that fact shall become material, and the owner shall be prima facie the person liable to pay such penalty, and after him the person who is the lessee of the whole house, in preference to the tenant or lessee of a part thereof. In any such action the owner, lessee, and occupant, or any two of them, may be made defendants, and judgment may be given against the one or more shown to be liable, as if he or they were sole defendant or defendants. No part of chapter two hundred and seventy-five of the laws of eighteen hundred and ninety-two or of any other act shall be so construed as to abrogate or impair the power of the board of health to sue for and recover such a penalty, whether the liability to pay said penalty shall arise from a violation of the laws, ordinances or sections of the sanitary code, in regard to light, ventilation, plumbing and drainage, or otherwise.

§ 12. Section ~~six~~ hundred and sixty-seven of said act, as amended by chapter three hundred and twenty-nine of the laws of eighteen hundred and ninety-two, is hereby amended so as to read as follows:

§ 667. [The board of health shall have authority, within present provisions of law, to make other regulations than the foregoing in special cases as to the proportion of any lot to be covered by any tenement or lodging-house, as to cellars, supply of water above the first floor in any house and the providing of fixtures therefor, light and ventilation, and the use of building or prem-

ises occupied for a tenement-house, for a school or stable or for storage of rags, when it shall be satisfied that such regulations will secure equally well the health of the occupants and the public health; provided, however, that in all such cases any modifications made by such regulations, shall be in accordance with the conditions of a permit in writing issued by the said board of health.】 The board of health shall have authority to make other regulations as to cellars and as to ventilation, consistent with the foregoing, where it shall be satisfied that such regulations will secure equally well the health of the occupants.

§ 13. This act is hereby declared to be a remedial statute and is to be construed liberally, to secure the beneficial interests and purposes thereof. Nothing herein contained shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action accrued or existing, whether for a penalty or otherwise, under any act repealed or amended by this act. All acts and parts of acts in conflict with any portion of this act are hereby repealed.

No. 2.

AN ACT to provide for the location, acquisition, construction and improvement of additional public parks in the city of New York, and for the construction therein of schoolhouses, school play-grounds and municipal baths.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

Section 1. The board of street opening and improvement of the city of New York, is hereby authorized and empowered to select, locate and lay out in the manner provided by chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, within three years after the passage of this act, so many public parks, to be finished in part as public play-grounds, in the city of New York as it may deem necessary, but not less than two in number, to be bounded by public streets now existing in the district east of the Bowery and Catharine street, and south of Fourth street in said city, and to acquire the title to the lands embraced therein. And the department of public parks

of the city of New York is hereby directed to commence the construction of said public parks so to be selected, located and laid out within the same period of time.

§ 2. At the time of the construction of said parks or at any time thereafter, the department of public parks of the city of New York, may construct in connection with the said parks and upon a portion thereof, municipal baths.

§ 3. Said parks may be located on blocks also containing public schoolhouses, and at the time of the construction of said parks or at any time thereafter, the board of education of the city of New York, may with the permission of the department of public parks and of the board of estimate and apportionment, construct upon a portion of such public parks, schoolhouses and school play-grounds.

§ 4. For the payment of all expenses to be incurred under the authority of this act, including the damages awarded and expenses incurred upon the acquisition of land and estates and interests therein and the construction of said parks and the erection and furnishing of buildings thereon, the comptroller of the city of New York is hereby authorized and directed to issue, from time to time bonds or stocks of the mayor, aldermen and commonalty of the city of New York to be payable from taxation and redeemable in not less than ten or more than thirty years from the date of issue in such amounts as may be necessary to carry out the purposes of this act but not exceeding in all the sum of three millions of dollars; and the mayor and comptroller are hereby authorized and directed to sign such bonds, and it shall be the duty of the clerk of the common council of said city to countersign the same and affix thereto the seal of the said city. Said bonds shall bear interest at a rate to be fixed by the comptroller, not exceeding four per centum per annum, and shall not be disposed of at less than the par value thereof.

§ 5. Whenever and as often as any site may be so as aforesaid selected, located and laid out as hereinbefore provided, the title to the lands embraced therein and all interests in said lands shall be acquired by the mayor, aldermen and commonalty of the city of New York and the same proceeding shall be had therefor as are provided for the acquisition of real estate and interests therein by chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, with like effect.

§ 6. This act shall take effect immediately.

No. 3.

AN ACT to provide for open-air playgrounds in connection with schoolhouses in the city of New York.

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

Section 1. Hereafter no schoolhouse shall be constructed in the city of New York without an open-air playground attached to or used in connection with the same.

§ 2. This act shall take effect immediately.

No. 4.

AN ACT to amend chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, entitled "An act to provide for the location, acquisition, construction and improvement of additional public parks in the city of New York."

The People of the State of New York, represented in Senate and Assembly, do enact as follows :

Section 1. Section ten of chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, entitled "An act to provide for the location, acquisition, construction and improvement of additional public parks in the city of New York," is hereby amended so as to read as follows:

§ 10. For the payment of all expenses to be incurred, under the authority of this act, including the damages awarded and expenses incurred upon the acquisition of land and of estates and interests therein, and the construction of said parks, and the erection and furnishing of buildings therein, the comptroller of the city of New York shall issue, from time to time, bonds or stocks of the mayor, aldermen and commonalty of the city of New York, to be payable from taxation and redeemable in not less than ten nor more than thirty years from the date of issue, in such amounts as shall be necessary to carry out the purposes of this act, and the mayor and comptroller are hereby authorized and directed to sign said bonds, and it shall be the duty of the clerk of the common council of said city to countersign the same and to affix thereto the seal of the said city. Said bonds shall bear interest at a rate to be fixed by the comptroller, not exceeding four per centum per annum, and shall not be disposed of at

less than the par value thereof. But no contract shall be entered into or liability incurred for the construction of any of said parks, or for the erection of any building therein, until the plans for such construction or erection, and in the case of a building and estimate of the cost thereof, shall have been prepared by the department of public parks, and submitted to and approved by the board of estimate and apportionment of said city. But no more than the sum of one million of dollars shall be expended or authorized to be expended in any one year under the provisions of this act; except that there may be issued in addition to said sum of one million of dollars in each year, such additional bonds or stocks as above mentioned, of the mayor, aldermen and commonalty of the city of New York, as may be necessary to pay the expenses of the construction, completion and acquisition of the land and of estates and interest therein, and of the construction of the parks hereinafter named and of the erection and furnishing of buildings therein, to wit: The park commonly called Mulberry Bend park, being a tract of land bounded by Mulberry, Park, Bayard and Baxter streets in the sixth ward of the city of New York; Saint John's park in the ninth ward in said city, and the park commonly called the East river extension park, being the land bounded on the west by Avenue B, on the north and east by the Harlem and East rivers, and on the south by East Eighty-sixth street, all in the city of New York.

§ 2. This act shall take effect immediately.

POSTSCRIPT.

Decision of the Court of Appeals in the Water Case.

The Court of Appeals, at Albany, State of New York, on February 26, 1895, reversed the order of the General Term of the Court of Common Pleas, and affirmed, with costs, the judgment of the trial court in the case of the Health Department of the City of New York, appellant, v. the Rector, Churchwardens, etc., of Trinity Church, in the City of New York, respondents. The following is from a copy of the record, furnished by H. E. Sickels, official reporter:

THE HEALTH DEPARTMENT OF THE CITY OF NEW YORK,
APPELLANT, v. THE RECTOR, CHURCHWARDENS, ETC.,
OF TRINITY CHURCH IN THE CITY OF NEW YORK,
RESPONDENT

(Decided February 26, 1895.)

Opinion of the Court.

This is an appeal from an order of the General Term of the Court of Common Pleas for the city of New York, which reversed a judgment on a verdict directed for the plaintiff and granted a new trial. The action was brought by the plaintiff by virtue of several acts of the Legislature giving it power in certain cases to commence an action in its own name for the purpose of recovering the amount of \$200, being the penalty for twenty days' violation by the defendant of the act hereinafter mentioned, relative to the supply of water in several tenement-houses owned by the defendant. The defendant denied some of the allegations of the complaint, and set up also, as one of the defenses to the action, that the statute upon which the complaint is founded is unconstitutional. Each party moved after the evidence was in that a verdict be directed in its favor. The motion on the part of the plaintiff was granted, and that on the part of the defendant was denied. The defendant excepted to these decisions of the court, and, judgment having been entered, it appealed to the General Term of the Court of Common Pleas. There the judg-

ment was reversed, and from the order of reversal the plaintiff appeals here.

The cause of action is founded upon section 663 of the Consolidation Act, relating to the city of New York, as such section was amended by chapter 84 of the Laws of 1887. After making various provisions in prior sections for the proper construction and ventilation of tenement-houses in the city of New York, the Legislature, by the amendment of 1887, enacted as follows:

"§ 663. Every such house erected after May 14, 1867, or converted, * * * shall have Croton or other water furnished in sufficient quantity at one or more places on each floor, occupied or intended to be occupied by one or more families; and all tenement-houses shall be furnished with a like supply of water by the owners thereof whenever they shall be directed so to do by the board of health. But a failure in the general supply of water by the city authorities shall not be construed to be a failure on the part of the owner, provided that proper and suitable appliances to receive and distribute such water are placed in said house. Provided, that the board of health shall see to it that all tenement-houses are so supplied before January 1, 1889."

The rest of the section is not material.

It appeared upon the trial that the defendant was the owner of certain houses in the city of New York, known as Nos. 59, 77, 84 and 86 Charlton street, and on the 20th of March, 1891, the plaintiff caused to be served on the agent of the defendant a notice requiring the defendant, in conformity with the provisions of the Sanitary Code, to alter, repair, cleanse and improve the premises above mentioned, and directing that suitable "appliances to receive and distribute a supply of water for domestic use be provided on the top floor of No. 59, the basement, first and second floors of No. 77, the basement, first, second and third floors of No. 84, and the basement and attic of 86;" and the defendant was required to comply with the requirements within two days from the receipt of the notice, and it was also stated in the notice that any application for a necessary extension of time or for the suspension of any part of the requirements contained in the written notice should be made to the health department at the time and place designated in the notice. This action was brought against defendant as owner of houses Nos. 77 and 84 Charlton street. The defendant claims that the houses in question were not tenement-houses as that word is popularly used; that they were houses constructed many years ago as dwelling-houses, and they have never been altered with reference to their internal arrangement so as to convert them into what would popularly be called tenement-houses. They were old-fashioned

dwelling-houses, two-story, attic and basement. There were hydrants in the back yards accessible to all tenants of the houses; but the proof in the case shows that at No. 77 Charlton street there were three families, and in No. 84 there were six families, and the houses came clearly and distinctly under the definition of tenement-houses, as enacted by section 666 of the Consolidation Act, as amended by the Laws of 1887 (chap. 84, p. 100). It is claimed on the part of the defendant that the buildings are in a transition neighborhood which will be shortly required for business structures; that they are not in a neighborhood where all or many of the large buildings which are known as tenement-houses, in the popular meaning of the word, are situated, and that these houses are not really within the reason of the statute. The defendant offered on the trial to give testimony as to the necessary cost of complying with the order of the board of health, which was excluded, and the defendant excepted. Defendant also offered to prove that the introduction of appliances to furnish water on each floor, and the required sinks and waste-pipes to connect with the sewer, would cause great danger of injury to the property through the water in the pipes freezing and the pipes bursting in the winter season; also, that no complaints had been made to the defendant corporation by the occupants of these houses in reference to the want of water. All this evidence was excluded under the objection of the plaintiff and upon the exception of the defendant.

The General Term of the common pleas granted leave to plaintiff to appeal from its order of reversal and granting a new trial on the ground that a question of law was involved which ought to be reviewed by this court.

Roger Foster, for appellant.

Stephen P. Nash, for respondent.

Peckham, J. The recovery in this case is founded upon that portion of the Consolidation Act which requires that all houses of a certain description, upon the direction of the board of health, shall be provided with Croton or other water in sufficient quantity at one or more places on each floor occupied, or intended to be occupied, by one or more families. The defendant, among other things, alleges as a defense that the order of the board of health directing the defendant to furnish the water as provided by the statute was made without notice to it, and that, as it could not be complied with excepting by the expenditure of a considerable amount of money, the result would be to deprive the defendant of its property without a hearing and an opportunity to show what defense it might have, and that it in fact deprived the defendant of its property without due process of law. There was no arrangement in either of these houses in

question for the supplying of the Croton or other water to the occupants of each floor at the time when the order of the board of health was made; such order could not, therefore, be complied with on the part of the defendant without the expenditure of money for that purpose. That fact must be assumed, and even upon that assumption we do not think the act is invalid on the alleged ground that it deprives the defendant, if enforced, of its property without due process of law. The act must be sustained, if at all, as an exercise of the police power of the State. It has frequently been said that it is difficult to give any exact definition which shall properly limit and describe such power. It must be exercised subject to the provisions of both the Federal and State Constitutions, and the law passed in the exercise of such power must tend in a degree that is perceptible and clear towards the preservation of the lives, the health, the morals or the welfare of the community, as those words have been used and construed in many cases heretofore decided. Such cases have arisen in this State where the power of the Legislature was questioned, and where the exercise of that power was affirmed or denied for the reasons given therein. (See *People v. Marks*, 99 N. Y. 377; *Matter of Jacobs*, 98 id. 98; *People v. Gilson*, 109 id. 389; *People v. Arensberg*, 105 id. 123, and many cases cited in these cases. See, also, *Slaughter House Cases*, 16 Wall. 36, 62; *Barber v. Connelly*, 113 U. S. 27; *Gas Co. v. Light Co.*, 115 id. 650; *Boston Beer Co. v. Moss*, 97 id. 25.) The act must tend in some appreciable and clear way towards the accomplishment of some one of the purposes which the Legislature has the right to accomplish under the exercise of the police power. It must not be exercised ostensibly in favor of the promotion of some such object while really it is an evasion thereof and for a distinct and totally different purpose, and the courts will not be prevented from looking at the true character of the act as developed by its provisions by any statement in the act itself or in its title showing that it was ostensibly passed for some object within the police power. The court must be enabled to see some clear and real connection between the assumed purpose of the law and the actual provisions thereof, and it must see that the latter do tend in some plain and appreciable manner towards the accomplishment in some of the objects for which the Legislature may use this power.

Assuming that this act is a proper exercise of the power in its general features we do not think that it can be regarded as invalid because of the fact that it will cost money to comply with the order of the board for which the owner is to receive no compensation or because the board is entitled to make the

order under the provisions of the act without notice to and a hearing of the defendant. As to the latter objection it may be said that in enacting what shall be done by the citizen for the purpose of promoting the public health and safety it is not usually necessary to the validity of legislation upon that subject that he shall be heard before he is bound to comply with the direction of the Legislature. *People v. Board of Health*, 140 N. Y. 1, 6.) The Legislature has power and has exercised it in countless instances to enact general laws upon the subject of the public health or safety without providing that the parties who are to be affected by those laws shall first be heard before they shall take effect in any particular case. So far as this objection of want of notice is concerned the case is not materially altered in principle from what it would have been if the Legislature had enacted a general law that all owners of tenement-houses should, within a certain period named in the act, furnish the water as directed. Indeed, this act does contain such a provision, but the plaintiff has not proceeded under it. If in such case the enforcement of the direct command of the Legislature were not to be preceded by any hearing on the part of any owner of a tenement-house, no provision of the State or Federal Constitution would be violated. The fact that the Legislature has chosen to delegate a certain portion of its power to the board of health, and to enact that the owners of certain tenement-houses should be compelled to furnish this water after the board of health had so directed, would not alter the principle, nor would it be necessary to provide that the board should give notice and afford a hearing to the owner before it made such order. I have never understood that it was necessary that any notice should be given under such circumstances before a provision of this nature could be carried out.

As to the other objection, no one would contend that the amount of the expenditure which an act of this kind may cause, whether with or without a hearing, is within the absolute discretion of the Legislature. It cannot be claimed that it would have the right, even under the exercise of the police power, to command the doing of some act by the owner of property and for the purpose of carrying out some provision of law, which act could only be performed by the expenditure of a large and unreasonable amount of money on the part of the owner. If such excessive demand were made the act would without doubt violate the constitutional rights of the individual. The exaction must not alone be reasonable when compared with the amount of the work or the character of the

improvement demanded. The improvement or work must in itself be a reasonable, proper and fair exaction when considered with reference to the object to be attained. If the expense to the individual under such circumstances would amount to a very large and unreasonable sum, that fact would be a most material one in deciding whether the method or means adopted for the attainment of the main object were or were not an unreasonable demand upon the individual for the benefit of the public. Of this the courts must, within proper limits, be the judges. We may own our property absolutely, and yet it is subject to the proper exercise of the police power. We have surrendered to that extent our right to its unrestricted use. It must be so used as not improperly to cause harm to our neighbor, including in that description the public generally. There are sometimes necessary expenses which inevitably grow out of the use to which we may put our property, and which we must incur, either voluntarily or else under the direction of the Legislature, in order that the general health, safety or welfare may be conserved. The Legislature, in the exercise of this power, may direct that certain improvements shall be made in existing houses at the owners' expense, so that the health and safety of the occupants, and of the public through them, may be guarded. These exactions must be regarded as legal so long as they bear equally upon all members of the same class, and their cost does not exceed what may be termed one of the conditions upon which individual property is held. It must not be an unreasonable exaction either with reference to its nature or its cost. Within this reasonable restriction the power of the State may, by police regulations, so direct the use and enjoyment of the property of the citizen that it shall not prove pernicious to his neighbors or to the public generally. The difference between what is and what is not reasonable, frequently constitutes the dividing line between a valid and void enactment by the Legislature in the exercise of its police power. In commenting on the difference of degree in any given case which would render an act valid or otherwise, Mr. Justice Holmes, in *Rideout v. Knox*, speaking for the Supreme Court of Massachusetts, said: "It may be said that the difference is only one of degree; most differences are when nicely analyzed. At any rate, difference of degree is one of the distinctions by which the right of the Legislature to exercise police power is determined. Some small limitations of previously-existing rights incident to property may be imposed for the sake of preventing a manifest evil; larger ones could not be, except by the exercise of the right of emi-

ment domain." (148 Mass. 368, 372. See, also, *Miller v. Horton*, 152 id. 540, at 547.) The case of *Stuart v. Palmer* (74 N. Y. 183) is an example of the exercise of the taxing power of the State and other considerations obtain in such cases.

Laws and regulations of a police nature, though they may disturb the enjoyment of individual rights, are not unconstitutional, though no provision is made for compensation for such disturbances. They do not appropriate private property for public use, but simply regulate its use and enjoyment by the owner. If he suffers injury, it is either *damnum absque injuria*, or, in the theory of the law, he is compensated for it by sharing in the general benefits which the regulations are intended and calculated to secure. (1 *Dillon on Mun. Corp.* [4th ed.] sec. 141 and note 2; *Com. v. Alger*, 7 Cush. 83, 84, 86; *Baker v. City of Boston*, 12 Pick. 183, 193; *Clark v. Mayor of Syracuse*, 13 Barb. 32, 36.) The State, or its agent in enforcing its mandate, takes no property of the citizen when it simply directs the making of these improvements. As a result thereof the individual is put to some expense in complying with the law, by paying mechanics or other laborers to do that which the law enjoins upon the owner, but so long as the amount exacted is limited as stated, the property of the citizen has not been taken in any constitutional sense without due process of law.

Instances are numerous of the passage of laws which entail expense on the part of those who must comply with them and where such expense must be borne by them without any hearing or compensation because of the provisions of the law. (*Thorpe v. R. R. Co.*, 27 Vt. 140-152.) One of the late instances of this kind of legislation is to be found in the law regulating manufacturing establishments. (Laws of 1887, chap. 462.) The provisions of that act could not be carried out without the expenditure of a considerable sum by the owners of a then existing factory. Hand-rails to stairs, hoisting shafts to be inclosed, automatic doors to elevators, automatic shifters for throwing off belts or pulleys, and fire-escapes on the outside of certain factories, all these were required by the Legislature from such owner and without any direct compensation to him for such expenditure. Has the Legislature no right to enact laws such as this statute regarding factories unless limited to factories to be thereafter built? Because the factory was already built when the act was passed, was it beyond the legislative power to provide such safeguards to life and health as against all owners of such property unless upon the condition that these expenditures to be incurred should ultimately come out of the public purse? I think to so hold would be to run counter to the general course

of decisions regarding the validity of laws of this character and to mistake the foundation upon which they are placed. (*Coates v. Mayor, etc.*, 7 Cowen, 584, 604; *Cooley's Const. Lim.* [5th ed.] chap. 16, page 706, etc.)

Any one in a crowded city who desires to erect a building is subject at every turn to the exactions of the law in regard to provision for health, for safety from fire and for other purposes. He is not permitted to build of certain materials within certain districts because, though the materials may be inexpensive, they are inflammable, and he must build in a certain manner. Theaters and hotels are to be built in accordance with plans to be inspected and approved by the agents of the city; other public buildings also; and private dwellings within certain districts are subject to the same supervision, and in carrying out all these various acts the owner is subjected to an expense much greater than would have been necessary to have completed his building, if not compelled to complete it in the manner, of the materials and under the circumstances prescribed by various acts of the Legislature. And yet he has never had a hearing in any one of these cases, nor does he receive any compensation for the increased expense of his building, rendered necessary in order to comply with the police regulations. I do not see that the principle is substantially altered where the case is one of an existing building and it is to be subjected to certain alterations for the purpose of rendering it either less exposed to the dangers from fires or its occupants more secure from disease. In both cases the object must be within some of the acknowledged purposes of the police power and such purpose must be possible of accomplishment at some reasonable cost, regard being had to all the surrounding circumstances. There might at first seem to be some difference as to the principle which obtained in enacting conditions upon complying with which the owner might be permitted to erect a structure within the limits of a city or village or for certain purposes, and the enactment of provisions which would necessitate the alteration of structures already in existence. In the first case it might be urged that the discretion of the Legislature in enacting conditions for building might be more extensive, because the owner would be under no necessity of building; it would be a matter of choice and not of compulsion, and in choosing to build it might be said that he accepted the condition, while in the second case he would have no choice and would be compelled to alter or improve the existing building as directed by the law. The difference, however, is, as it seems to me, really not one of principle, but only of circumstances. Although

the owner in the one case is not compelled to build, yet he is limited in the use to which he may put his property by the provisions of the law. He can not build as he wishes to, unless upon the condition of a compliance with the law, and he may very probably be so situated as to location of property, and in other ways, that it is really a necessity for him to use his property in the way proposed, and which he can not do without expending considerable sums above what he otherwise would be called upon to do in order to comply with those provisions. They must, therefore, be reasonable, as already stated. When one's use of his property is thus circumscribed and limited, what might otherwise be called his rights are plainly interfered with, and the justification therefor can only be found in this police power. So, when the owner of an existing structure is called upon to make such alterations, while the necessity may seem to be more plainly present, still it may exist in both cases, and the only justification in either is the same. Under the police power persons and property are subjected to all kinds of restraints and burdens in order to secure the general comfort and health of the public.

The citizen can not, under this act, be punished in any way, nor can any penalty be recovered from him for an alleged non-compliance with any of its provisions or with any order of the board of health without a trial. The punishment or penalties provided for in section 665 can not be enforced without a trial under due process of law, and upon such trial he has an opportunity to show whatever facts would constitute a defense to the charge; to show, in other words, that he did not violate the statute or the order of the board. He might show that the house in question was not a tenement-house within the provision of the act, or that there was a supply of water as provided for by the act, or any other fact which would show that he had not been guilty of an offense with regard to the act. (*City of Salem v. R. R. Co.*, 98 Mass. 431, 447.)

The mere fact, however, that the law can not be enforced without causing expense to the citizen who comes within its provisions furnishes no constitutional obstacle to such enforcement even without previous notice to and a hearing of the citizen. What is the propriety of a hearing and what would be its purpose? His property is not taken without due process of law, within any constitutional sense when the enforced compliance with certain provisions of the statute may result in some reasonable expense to himself.

Any defense which he may have is available upon any attempt to punish him or to enforce the provisions of the law.

An act of the Legislature of Massachusetts which provided that every building in Boston used as a dwelling-house, situated on a street in which there was a public sewer, should have sufficient water-closets connected therewith, was held valid as to existing houses and applied in its penalties to their owners, if such houses continued without the closets after its passage. (*Commonwealth v. Roberts*, 155 Mass. 281, and see *Train v. Disinfecting Co.*, 144 id. 529.)

No notice or hearing was provided for in the above statute as to water-closets before the act could be enforced, and yet to enforce it would, of course, cost the owner of the building some money. The same may be said as to the disinfecting of the rags, in above case in 144 Mass. If the citizen be charged with any violation of such a statute, and any penalty or punishment is sought or attempted, then is the time for a hearing and then is the time he can make defense if any he may have. But to assert that he must be heard before the authorities assume or endeavor to act under and to enforce the law as against him, is to say, in substance, that each citizen is to be heard upon the general question whether it is right to enforce the law in his particular case. This is not to be permitted. (*Com. v. Alger*, 7 Cush. 53, 104; *City of Salem v. R. R. Co.*, 98 Mass. 431, 443.) Everything that the individual could urge upon the hearing if given prior to the attempted enforcement of the act by the making of the order in question can be said by him when he is sued, or when the attempt is made to punish him for the alleged violation of the law. Upon the prior hearing, if granted, it would be no defense to him if he showed that the law could not be complied with unless at some reasonable expense to himself. That would have been matter to urge upon the Legislature prior to the enactment of the statute, as a question of reasonable cost and of public policy. (*R. R. Co. v. Com.*, 79 Me. 386, 393; *The State v. R. R. Co.*, 83 Mo. 144-149; *Thorpe v. R. R.*, 27 Vt. 140, 149, 156, note.)

We do not think that the cost of making the improvements called for by this act exceeds the limits which have been defined, assuming the amount thereof which the defendant offered to prove.

This is not the case of a proceeding against an individual on the ground of the maintenance of a nuisance by him, nor is it the case of an assumed right to destroy an alleged nuisance without any other proof than the decision of the board itself (with or without a hearing) that the thing condemned was a nuisance. Nor is it the case of the destruction of property which is in fact a nuisance, without compensation.

When property of an individual is to be condemned and abated as a nuisance it must be that somewhere between the institution of the proceedings and the final result the owner shall be heard in the courts upon that question, or else that he shall have an opportunity when calling upon those persons who destroyed his property to account for the same, to show that the alleged nuisance was not one in fact. No decision of a board of health, even if made on a hearing, can conclude the owner upon the question of nuisance. (*People, ex rel. v. Board of Health of Yonkers*, 140 N. Y. 1; *Board of Health, etc., v. Copcut*, id. 12; *Miller v. Horton*, 152 Mass. 540; *Hutton v. City of Camden*, 39 N. J. Law, 122.) We are, therefore, of the opinion that the act, if otherwise valid, is not open to the objection that it violates either the Federal or State Constitution in the way of depriving the defendant of its property without due process of law.

We think the act is valid as an exercise of the police power with respect to the public health, and also with respect to the public safety regarding fires and their extinguishment. We can not say, as a legal proposition, that it tends only to the convenience of the tenants in regard to their use of water. We can not say that it has no fair, and plain, and direct tendency towards the promotion of the public health or towards the more speedy extinguishment of fires in crowded tenement-houses. That the free use of water, especially during the summer months, tends towards the healthful condition of the body by reason of the increased cleanliness occasioned by such use, there can be no reasonable doubt. The supply of water to the general public in a city has become not only a luxury, but an absolute necessity for the maintenance of the public health and safety. The city of New York itself has spent millions upon millions of dollars for the purpose of securing this great boon for the inhabitants thereof. The right of eminent domain in the taking of land around the sources of the water supply has been granted to and exercised by that city to a very large extent, so that all sources of supply of this vital necessity of life should be rendered as free from contamination and danger to health and life as it possibly could be. This use of the water is not confined, so far as the necessities of the case are concerned, to the public hydrants. The water is brought into the city so that it may be used in every house and building within its limits, and, although we may, and, indeed, must admit that no health law could practically be enforced which should provide that every individual inhabitant of the tenement-houses should use the water, yet we think it is perfectly clear that facili-

ties for the use of the water will almost necessarily be followed by its actual use in larger quantities and more frequently than would be the case without such facilities, and to the great benefit of the health of the occupants of such houses. Those occupants require it more, even, than their more favored brethren living in airy, larger, more spacious and luxurious apartments. Their health is matter of grave public concern. The Legislature can not in practice enforce a law so as to make a man wash himself; but when it provides facilities therefor, it has taken a long step towards the accomplishment of that object. That dirt, filth, nastiness in general, are great promoters of disease, that they breed pestilence and contagion, sickness and death, can not be successfully denied. There is scarcely a dissent from the general belief on the part of all who have studied the disease that cholera is essentially a filth disease. The so-called ship fever or jail fever arises from filth; most diseases are aggravated by it. That opportunities, conveniences for the use of water in these tenement-houses will unquestionably tend towards and be followed by more cleanly living on the part of the occupants of those houses can not, it seems to me, admit of any rational doubt; and, if so, then the law which provides at a reasonable cost for the furnishing of such facilities is plainly and honestly a health law.

The learned counsel for the defendant asks where this kind of legislation is to stop. Would it be contended that the owners of such houses could be compelled to furnish each room with a bath-tub and all the appliances that are to be found in a modern and well-appointed hotel? Is there to be a bath-room and watercloset to each room and every closet to be a model of the very latest improvement? To which I should answer, certainly not. That would be so clearly unreasonable that no court in my belief could be found which would uphold such legislation, and it seems to me equally clear that no legislature could be found that would enact it. The tenement-house in New York is a subject of very great thought and anxiety to the residents of that city. The numbers of people that live in such houses, their size, their ventilation, their cleanliness, their liability to fires, the exposure of their occupants to contagious diseases, and the consequent spread of the contagion through the city and the country, the tendencies to immorality and crime where there is very close packing of human beings of the lower order in intelligence and morals, all these are subjects which must arouse the attention of the legislator and which it behooves him to see to in order that such laws are enacted as shall directly tend to the improvement of the health, safety and morals of those men and women that are to be found in such houses. Some legislation upon this subject

can only be carried out at the public expense, while some may be properly enforced at the expense of the owner. We feel that we ought to inspect with very great care any law in regard to tenement-houses in New York and to hesitate before declaring any such law invalid so long as it seems to tend plainly in the direction we have spoken of and to be reasonable in its provisions. If we can see that the object of this law is without doubt the promotion or the protection of the health of the inmates of these houses or the preservation of the houses themselves and consequently much other property from loss or destruction by fire, and if the act can be enforced at a reasonable cost to the owner, then in our opinion it ought to be sustained. We believe this statute fulfills these conditions. We think that in this case it is not a mere matter of convenience of the tenants as to where they shall obtain their supply of water. Simple convenience we admit would not authorize the passage of this kind of legislation. But where it is obvious that without the convenience of an appliance for the supply of water on the various floors of these tenement-houses, there will be scarcely any but the most limited and scanty use of the water itself, which must be carried from the yards below, and when we must admit that the free use of water tends directly and immediately towards the sustaining of the health of the individual and the prevention of disease from filth either of the person or in the surrounding habitation, then we must conclude that it is more than a mere matter of convenience in the use of water which is involved in the decision of this case. The absence of the water tends directly towards the breeding of disease, and its presence is healthful and humanizing.

Looked at in the light of a fire law, and the act is also valid. The section of the Consolidation Act in question belongs to title 7, which treats of tenement and lodging-houses, and various provisions are made in the preceding sections looking towards the prevention and the prompt extinguishment of fires, as well as towards the protection and promotion of the health of the occupants of such houses. And it seems to me that the facility for the extinguishment of fires which would result from the presence of a supply of water on each floor of these houses is plain, and the act must be looked upon as a means for securing such an important result. We are inclined, therefore, to the belief that the act may be upheld under both branches alike as a health law and as one calculated to prevent destruction of property from fires which might otherwise take place.

The act is somewhat vague as to what shall be regarded as a sufficient quantity of water on each floor, but it must have

in this respect as in others a reasonable construction, and when an appliance for its supply is placed on a floor where it might be open and common to all those on that floor, and easy of access, and the supply sufficient in amount for general domestic purposes, then and in such case there would be a full compliance with the provisions of the act.

Some criticism is made in regard to the wording of the order of the board of health. The order directed that suitable appliances to receive and distribute a supply of water for domestic use should be provided at these various houses, and it is claimed that there is no language in the act which requires appliances for the distribution of water, nor that the water shall be furnished for domestic use. The act provides that the water shall be furnished in sufficient quantity at one or more places on each floor occupied or intended to be occupied by one or more families. This necessarily requires some appliance for that purpose. The statute must also mean that the water is to be provided for the use of the one or more families that are to be occupants of the floor, and that must include a sufficient quantity of water for domestic purposes.

The provision in the law that the water shall be furnished in sufficient quantities at one or more places on each floor can not be so construed as to leave the number of places of supply entirely to the discretion of the board of health. As the water is to be supplied in sufficient quantity for domestic and not for manufacturing purposes, when that point is reached the law is satisfied. Looking at the purpose of the supply, it is, as I have said, reasonably apparent that one such place on each floor, fairly accessible to all the occupants of the floor, would be all that could usually and reasonably be required, and anything further would be unreasonable, and, therefore, beyond the power of the board to order. The facilities thus given would at the same time furnish the means necessary for obtaining water to extinguish such fires as might accidentally break out and before they had obtained such headway as to render necessary the aid of the fire department. This is clearly a most important safeguard.

The question alluded to in the brief of the respondent's counsel, whether the penalties might not be said to have commenced running immediately after the passage of the amended act of 1887, because of the provision requiring all tenement-houses to be supplied with suitable appliances before January 1, 1889, and so have amounted to a confiscation of property, is not before us, as the proceeding herein was to recover only those incurred since the order was made by the board. If such a case arises where

penalties so enormous in amount are claimed, there will probably be not much difficulty in refusing enforcement under the circumstances of that case.

Upon the whole we think the order of the General Term of the Court of Common Pleas should be reversed, and the judgment of the trial court affirmed, with costs.

Dissenting Opinion.

Bartlett, J. (dissenting). I am unable to discover the limit of legislative power if this act is to stand.

Upon the face of the proceeding it is not an exercise of the police power to promote the safety of property by the prevention of fire. The order of the health department served upon the defendant directs that suitable appliances "to receive and distribute a supply of water for domestic use be provided," on certain floors in the houses named.

The act provides that tenement-houses "shall have Croton or other water furnished in sufficient quantities at one or more places on each floor," etc.

The order undertakes to construe the act and requires the landlord to distribute a supply of water for domestic use on each floor.

The board of health is not confined to compelling one place on each floor at which water may be obtained, but the act reads "one or more places on each floor;" so that it is left with the board of health to determine how many water faucets upon each floor shall be provided by the landlord for the use and convenience of his tenants. In other words, the Legislature seeks to vest in one of the departments of the city government the power to decide the extent of the plumbing in tenement-houses for Croton water purposes.

It must, of course, be admitted that water is essential to the public health, and more particularly in crowded tenement districts.

It would undoubtedly be a legitimate exercise of the police power to compel the introduction of water into tenement-houses at some convenient point, where all the tenants could obtain an adequate supply, and it may be that the Legislature could go so far as to require a faucet upon each floor of the large tenement-houses, in the public hall, in order to encourage the free use of water, by enabling the tenants to procure it without too great exertion, but certainly it can not be possible that the Legislature may leave the number and location of faucets on each floor for the domestic use of water to be determined by the board of

health. There is no limitation as to whether the faucets shall be in the public hall or in the room of the tenant. To my mind, such an exercise of the police power is spoliation and confiscation under the forms of law; it deprives the landlord of the control of his property and leaves it to a stranger to decide in what manner the house shall be plumbed.

It is a direct interference with the right of the landlord to regulate the rental value of his property.

It is a matter of common knowledge that in rented apartments in the city of New York the convenience and volume of the water supply is regulated by the rental value of the premises, and that in the cheap tenement districts the convenience of the tenants is not and can not be consulted to the same extent as in first-class localities.

The vice of the act we are considering lies in the fact, already pointed out, that it is too general in its terms and clothes the health department with unlimited and undefined powers.

If it be the legislative intent to compel the introduction of a more abundant supply of water into tenement-houses, either to promote the public health or to provide for the timely extinguishment of fires, I think this very proper exercise of the police power should be manifested in an act containing details and limitations, so that capitalists may understand the burdens imposed upon tenement property, and decide, with a full knowledge of the facts, whether they care to embark their money in that class of buildings.

This court has held (*Matter of Jacobs*, 98 N. Y., 108) that the limit of police power "can not be accurately defined, and the courts have not been able or willing definitely to circumscribe it."

Each case must be decided very largely on its own facts.

A sound public policy certainly dictates that at this time, when the rights of property and the liberty of the citizen are sought to be invaded by every form of subtle and dangerous legislation, the courts should see to it that those benign principles of the common law which are the shield of personal liberty and private property suffer no impairment.

I think the judgment should be affirmed, with costs.

All concur with Peckham, J., for reversal, except Bartlett, J., who reads for affirmance.

Judgment reversed.

POSTSCRIPT No. 2.

LAWS OF 1895.

[Every law, unless a different time shall be prescribed therein, shall not take effect until the twentieth day after it shall have become a law. Section 48, article II, chapter 8 of the General Laws.]

CHAPTER 69.

AN ACT to amend chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, entitled "An act to provide for the location, acquisition, construction and improvement of additional public parks in the city of New York."

Accepted by the city.

Became a law March 4, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section ten of chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, entitled "An act to provide for the location, acquisition, construction and improvement of additional public parks in the city of New York," is hereby amended so as to read as follows:

§ 10. For the payment of all expenses to be incurred, under the authority of this act, including the damages awarded and expenses incurred upon the acquisition of land and of estates and interests therein, and the construction of said parks, and the erection and furnishing of buildings therein, the comptroller of the city of New York shall issue, from time to time, bonds or stock of the mayor, aldermen and commonalty of the city of New York, to be payable from taxation and redeemable in not less than ten nor more than thirty years from the date of issue, in such amounts as shall be necessary to carry out the purposes of this act, and the mayor and comptroller are hereby authorized and directed to sign said bonds, and it shall be the duty of the clerk of the common council of said city to countersign the same and to affix thereto the seal of the said city. Said bonds shall bear interest at a rate to be fixed by the comptroller, not exceeding four per centum per annum, and shall not be disposed of at less than the par value

thereof. But no contract shall be entered into or liability incurred for the construction of any of said parks, or for the erection of any building therein, until the plans for such construction or erection, and in the case of a building an estimate of the cost thereof, shall have been prepared by the department of public parks, and submitted to and approved by the board of estimate and apportionment of said city. But no more than the sum of one million of dollars shall be expended or authorized to be expended in any one year under the provisions of this act; except that there may be issued in addition to said sum of one million of dollars in each year, such additional bonds or stocks as above mentioned, of the mayor, aldermen and commonalty of the city of New York, as may be necessary to pay the expenses of the construction, completion and acquisition of the land and of estates and interest therein, and of the construction of the parks hereinafter named and of the erection and furnishing of buildings therein, to wit: The park commonly called Mulberry Bend park, being a tract of land bounded by Mulberry, Park, Bayard and Baxter streets in the sixth ward of the city of New York; Saint John's park in the ninth ward in said city, and the park commonly called the East river extension park, being the land bounded on the west by Avenue B, on the north and east by the Harlem and East rivers, and on the south by East Eighty-sixth street, all in the city of New York.

§ 2. This act shall take effect immediately.

CHAPTER 293.

AN ACT to provide for the location, acquisition, construction and improvement of additional public parks in the city of New York, and for the construction therein of schoolhouses, school playgrounds and municipal baths.

Accepted by the city.

Became a law April 11, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. The board of street opening and improvement of the city of New York, is hereby authorized and empowered to select, locate and lay out, in the manner provided by chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, within three years after the passage of this act, so many public parks, to be finished in part as public playgrounds, in the city of New York as it may deem necessary, but not less

than two in number, to be bounded by public streets now existing in the district east of the Bowery and Catharine street, and south of Fourth street in said city, and to acquire the title to the lands embraced therein. And the department of public parks of the city of New York is hereby directed to commence the construction of said public parks so to be selected, located and laid out within the same period of time.

§ 2. At the time of the construction of said parks or at any time thereafter, the department of public parks of the city of New York, may construct, in connection with the said parks and upon a portion thereof, municipal baths.

§ 3. Said parks may be located on blocks also containing public schoolhouses, and at the time of the construction of said parks or at any time thereafter, the board of education of the city of New York may, with the permission of the department of public parks and of the board of estimate and apportionment, construct upon a portion of such public parks, schoolhouses and school playgrounds.

§ 4. For the payment of all expenses to be incurred under the authority of this act, including the damages awarded and expenses incurred upon the acquisition of land and estates and interests therein and the construction of said parks and the erection and furnishing of buildings thereon, the comptroller of the city of New York is hereby authorized and directed to issue from time to time bonds or stocks of the mayor, aldermen and commonalty of the city of New York to be payable from taxation and redeemable in not less than ten or more than thirty years from the date of issue in such amounts as may be necessary to carry out the purposes of this act, but not exceeding in all the sum of three millions of dollars; and the mayor and comptroller are hereby authorized and directed to sign such bonds, and it shall be the duty of the clerk of the common council of said city to countersign the same and affix thereto the seal of the said city. Said bonds shall bear interest at a rate to be fixed by the comptroller, not exceeding four per centum per annum, and shall not be disposed of at less than the par value thereof.

§ 5. Whenever and as often as any site may be so as aforesaid selected, located and laid out as hereinbefore provided, the title to the lands embraced therein and all interests in said lands shall be acquired by the mayor, aldermen and commonalty of the city of New York and the same proceedings shall be had therefor as are provided for the acquisition of real estate and interests therein by chapter three hundred and twenty of the laws of eighteen hundred and eighty-seven, with like effect.

§ 6. This act shall take effect immediately.

CHAPTER 338.

AN ACT to provide for open-air playgrounds in connection with schoolhouses in the city of New York.

Became a law April 17, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Hereafter no schoolhouse shall be constructed in the city of New York without an open-air playground attached to or used in connection with the same.

§ 2. This act shall take effect immediately,

CHAPTER 567.

AN ACT to amend chapter four hundred and ten of the laws of eighteen hundred and eighty-two, entitled "An act to consolidate into one act and to declare the special and local laws affecting public interests in the city of New York," as subsequently amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, and chapter two hundred and eighty-eight of the laws of eighteen hundred and eighty-seven, and chapter two hundred and seventy-five of the laws of eighteen hundred and ninety-two, and otherwise so as to provide for the improvement of tenement and lodging-houses in the city of New York.

Became a law May 9, 1895, with the approval of the Governor. Passed, three-fifths being present.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Section two hundred and ninety-six of chapter four hundred and ten of the laws of eighteen hundred and eighty-two, entitled "An act to consolidate into one act and to declare the special and local laws affecting public interests in the city of New York," as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, in relation to the powers, duties and health fund of the board of health, and of the health department of the city of New York, and for the preservation of the public health, is hereby amended so as to read as follows:

§ 296. The board of police, upon the requisition of the board of health, shall detail to the service of the said board of health,

for the purpose of the enforcement of the provisions of the sanitary code, and of the acts relating to tenement and lodging-houses, at least fifty suitable officers and men of experience of at least five years' service in the police force, provided that the board of health shall pay monthly to the board of police a sum equal to the pay of all officers and men so detailed. At least twenty of the officers and men so detailed shall be employed exclusively in the enforcement of the laws relating to tenement and lodging-houses. These officers and men shall belong to the sanitary company of police and shall report to the president of the board of health. The board of health may report back to the board of police for punishment any member of said company guilty of any breach of orders or discipline, or of neglecting his duty, and thereupon the board of police may detail another officer or man in his place, and the discipline of the said members of the sanitary company shall be in the jurisdiction of the board of police, but at any time the board of health may object to the efficiency of any member of said sanitary company, and thereupon another officer or man may be detailed in his place. The board of police shall have the power, and it shall be their duty to fill all vacancies in the police force in the city caused by the detailing of said officer and men upon the requisition of the board of health. And the board of police are hereby authorized and empowered to appoint twenty-five additional men to the police force subject to all the law, rules and regulations relating to and governing the appointment of patrolmen in said city; and the officers thus detailed to the service of the said board of health shall be selected for their peculiar fitness from amongst those who shall pass a civil service examination conducted by the supervisory board of commissioners of the New York municipal civil service.

§ 2. Section five hundred and thirty-three of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 533. The authority, duty and powers of the board of health shall extend over the waters of the bay, up to and within the quarantine limits, as established by law, but shall not be held to interfere with the powers and duties of the commissioners of quarantine or health officer of the port. It shall be the duty of the board of health to make an annual report to the mayor of the city of New York of all the operations of the said board for the previous year. The mayor may at any time call for a more full report, or for a report upon any portion of the work of said board whenever he may deem it to be for the public good so to do.

§ 3. Section five hundred and eighty-eight of said act, as amended by chapters eighty-four and four hundred and eighty-nine of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 588. Said board shall appoint and commission at least thirty-five sanitary inspectors, and shall have power to appoint five additional sanitary inspectors, if it deems that number needful, and from time to time prescribe the duties and salaries of each of said inspectors, and the place of their performance and of all other persons exercising any authority under said board, except as herein specially provided; but twenty of such inspectors shall be physicians of skill and of practical professional experience in said city; the additional sanitary inspectors heretofore duly appointed and commissioned may be included among the sanitary inspectors mentioned in this section, and may continue to act as such without reappointment, but nothing herein contained shall curtail any of the powers vested in the health department by section five hundred and eighty of this act, and the number of sanitary inspectors for whom provision is made in this section shall be exclusive of the special inspectors for whom provision is made in section five hundred and eighty. All of the said inspectors shall have such practical knowledge of scientific or sanitary matters as qualify them for the duties of their office. Each of such inspectors shall, twice in each week, make a written report to said board stating what duties he has performed, and where he has performed them, and also such facts as have come to his knowledge connected with the purposes of this chapter as are by him deemed worthy of the attention of said board, or such as its regulations may require of him; which reports, with the other reports herein elsewhere mentioned, shall be filed among the records of the said board.

§ 4. Section six hundred and fifty-four of said act is hereby amended so as to read as follows:

§ 654. It shall not be lawful without a permit from the superintendent of buildings to construct, during the erection of a tenement or lodging-house, nor after the completion of such tenement or lodging-house, any room or rooms in any basement or cellar to be occupied wholly or in part as a dwelling, nor shall it be lawful without a permit from the board of health, to let or occupy, or suffer to be occupied separately as a dwelling, any vault, cellar, or underground room built or rebuilt after July first, eighteen hundred and sixty-seven, or which shall not have been so let or occupied before said date. It shall not be lawful, without such permit, to let or continue to be let, or to occupy or suffer to be occupied separately as a

dwelling, any vault, cellar, basement, or room wholly or in part underground, unless the same be in every part thereof at least seven feet in height, measured from the floor to the ceiling thereof, nor unless the same be for at least two feet of its height above the surface of the street or ground adjoining or nearest to the same, nor unless there be outside of and adjoining the said vault, cellar, room, or basement, and extending along the entire frontage thereof, and upwards from six inches below the level of the floor thereof, up to the surface of the said street or ground an open space of at least two feet and six inches wide in every part, nor unless the same be well and effectually drained by means of a drain, the uppermost part of which is one foot at least below the level of the floor of such vault, cellar, or room, nor unless there is a clear space of not less than one foot below the level of the floor, except where the same is cemented, nor unless there be appurtenant to such vault, cellar, or room, the use of a water-closet or privy kept and provided as in this title required; nor unless the same have an external window opening of at least nine superficial feet clear of the sash frame, in which window opening there shall be fitted a frame filled in with glazed sashes, at least four and a half superficial feet of which shall be made so as to open for the purpose of ventilation. Provided, however, that in the case of an inner or back vault, cellar, or room, let or occupied along with a front vault, cellar, or room, as part of the same letting or occupation, it shall be a sufficient compliance with the provisions of this section if the front room is provided with a window as hereinbefore provided, and if the said back vault, cellar or room is connected with the front vault, cellar or room, by a door, and also by a proper ventilating or transom window, and, where practicable, also connected by a proper ventilating or transom window, or by some hall or passage communicating with the external air. Provided always that in any area adjoining a vault, cellar, underground room, or basement, there may be steps necessary for access to such vault, cellar, or room, if the same be so placed as not to be over, across, or opposite to the said external window, and so as to allow between every part of such steps and the external wall of such vault, cellar or room, a clear space of six inches at least, and if the rise of said steps is open; and provided further that over or across any such area there may be steps necessary for access to any building above the vault, cellar or room to which such area adjoins, if the same be so placed as not to be over, across or opposite to any such external window.

§ 5. Section six hundred and fifty-six of said act is hereby amended so as to read as follows:

§ 656. Every tenement or lodging-house shall have the proper and suitable conveniences or receptacles for receiving garbage and other refuse matters. No tenement or lodging-house, nor any portion thereof, shall be used as a place of storage for any combustible article, or any article dangerous to life or detrimental to health; nor shall any horse, cow, calf, swine, pig, sheep, or goat be kept in said house. After the first day of September, eighteen hundred and ninety-five, no bakery or place of business in which fat is boiled shall be maintained in any tenement-house which is not fire-proof, or where the ceiling and side walls of place where said fat boiling is done are made safe by fire-proof material around the same, except by permit of and under such conditions as may be prescribed by the fire department, and after the first day of September, eighteen hundred and ninety-five, no part of any tenement-house shall be used for the storage of feed, hay or straw, except by permit of and under such conditions as may be prescribed by the fire department. After the first day of September, eighteen hundred and ninety-five, all transoms, windows, doors and other openings leading into halls or into rooms opening into halls from bakeries or places of business in which fat is boiled in the basements, cellars, or on the first floors of all tenement-houses in the city of New York, shall be solidly closed with the same material as the walls or partitions in which the openings exist so that there shall be no opening between said bakeries or other places of business of said floor in which fat is boiled and the other parts of the tenement-house in which the same shall be situated. After the first day of September, eighteen hundred and ninety-five, all transoms and windows opening into halls from any portion of said floor of any tenement-house where paint, oil, spirituous liquors or drugs are stored or kept for the purpose of sale, or otherwise, shall be removed and closed up as solidly as the rest of the wall; and all doors leading into any such hall or room from such portion of said floor of said tenement-house used as aforesaid, shall be made fire-proof.

§ 6. Section six hundred and fifty-seven of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 657. No wall paper shall be placed upon a wall or ceiling of any tenement or lodging-house, unless all wall paper shall be first removed therefrom and said wall and ceiling thoroughly cleaned. Every tenement or lodging-house, and every part thereof shall be kept clean and free from any accumulations of dirt, filth, garbage or other matter in or on the same, or in the yard, court, passage,

area or alley connected with it or belonging to the same. The owner or keeper of any lodging-house, and the owner or lessee of any tenement-house or part thereof, shall thoroughly cleanse all the rooms, passages, stairs, floors, windows, doors, walls, ceilings, privies, cess-pools and drains of the house or part of the house of which he is the owner or lessee, to the satisfaction of the board of health, so often as he shall be required by or in accordance with any regulation or ordinance of said board, and shall well and sufficiently, to the satisfaction of the said board, whitewash the walls and ceilings thereof twice at least in every year, in the months of April and October, unless the said board shall otherwise direct. Every owner of a tenement or lodging-house and every person having control of a tenement or lodging-house, shall file in the department of health a notice containing his name and address, and also a description of the property by street number or otherwise, as the case may be, in such manner as will enable the board of health easily to find the same; and also the number of apartments in each house, the number of rooms in each apartment, the number of families occupying each apartment, and the trades or occupations carried on therein. In case of a transfer of any tenement-house, or lodging-house, it shall be the duty of the grantor and grantee of said tenement or lodging-house to file in the department of health a notice of such transfer stating the name of the new owner within thirty days after such transfer. In case of the devolution of said property by will, it shall be the duty of the executor and of the devisee, if more than twenty-one years of age, and in case of the devolution of such property by inheritance without a will, it shall be the duty of the heirs, or in case all of the heirs are under age it shall be the duty of the guardians of such heirs, and in case said heirs have no guardians it shall be the duty of the administrator of the deceased owner of said property to file in said department a notice stating the death of the deceased owner and the names of those who have succeeded to his interest in said property, within thirty days after the death of said decedent in case he died intestate, and within thirty days after the probate of his will, if he died testate. A failure to file such notice shall make said property and the owners thereof liable to a penalty of not less than ten dollars nor more than fifty dollars. Said penalty may be collected in the manner prescribed in section six hundred and sixty-five of this act. Every person claiming to have an interest in any tenement or lodging-house may file his name and address in the department of health. All notices and orders of the board of health required by law to

be served in relation to a tenement or lodging-house shall be served by posting in some conspicuous place in the house, a copy of the notice or order, five days before the time for doing the thing in relation to which said notice or order was issued. The posting of a copy of an order or notice, in accordance with this section, shall be sufficient service upon the owner of the property affected. It shall be the duty of the board of health to cause a copy of every such notice or order to be mailed, on the same day that it is posted in the house addressed to the name and address of each person who has filed with the department of health the notice provided for in this section.

§ 7. Section six hundred and fifty-nine of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 659. Whenever it shall be certified to the board of health of the health department of the city of New York by the sanitary superintendent, that any building or any part thereof in the city of New York is infected with contagious disease, or by reason of want of repair has become dangerous to life, or is unfit for human habitation because of defects in drainage plumbing, ventilation, or the construction of the same, or because of the existence of a nuisance on the premises and which is likely to cause sickness among its occupants, the said board of health may issue an order requiring all persons therein to vacate such building or part thereof for the reasons to be stated therein as aforesaid. Said board shall cause said order to be affixed conspicuously in the building or part thereof and to be personally served on the owner, lessee, agent, occupant or any person having the charge or care thereof; if the owner, lessee or agent can not be found in the city of New York or do not reside therein or evade or resist service, then said order may be served by depositing a copy thereof in the post-office in the city of New York, properly inclosed and addressed to such owner, lessee or agent at his last known place of business or residence, and prepaying the postage thereon; such building or part thereof shall within ten days after said order shall have been posted and mailed as aforesaid or within such shorter time not less than twenty-four hours, as in said order may be specified, be vacated, but said board whenever it shall become satisfied that the danger from said building or part thereof has ceased to exist, or that said building has been repaired so as to be habitable, may revoke said order. Whenever in the opinion of the board of health of the health department of the city of New York, any building or part thereof in the city of New York, an order to vacate which has been made by said board, is, by reason of age,

defects in drainage, plumbing, infection with contagious disease, or ventilation, or because of the existence of a nuisance on the premises, which is likely to cause sickness among its occupants or among the occupants of other property in the city of New York, or because it stops ventilation in other buildings, or otherwise makes or conduces to make other buildings adjacent to the same unfit for human habitation, or dangerous or injurious to health; or because it prevents proper measures from being carried into effect for remedying any nuisance injurious to health or other sanitary evils in respect of such other buildings; so unfit for human habitation that the evils in or caused by said building can not be remedied by repairs or in any other way except by the destruction of said building, or of a portion of the same, said board of health may condemn the same and order it removed, provided the owner or owners of said building can demand a survey of said building in the manner provided for in case of unsafe buildings, and may institute proceedings in the supreme court in the county of New York for the condemnation of said building. Said proceedings shall be instituted and carried on in the manner prescribed by the code of civil procedure, except as modified by this act. Upon the institution of said proceedings, the owner of said building or any person interested therein may in his answer dispute the necessity of the destruction of said building or part thereof as the case may be. In such case, the court shall not appoint commissioners unless proof is made of the necessity of said destruction. In such proceeding evidence shall be receivable by the commissioners to prove:

1. That the rental of the building was enhanced by reason of the same being used for illegal purposes or being so overcrowded as to be dangerous or injurious to the health of the inmates; or

2. That the building is in a state of defective sanitation, or is not in reasonably good repair; or

3. That the building is unfit, and not reasonably capable of being made fit, for human habitation; and, if the commissioners are satisfied by such evidence, then the compensation—

(a) Shall in the first case, so far as it is based on rental, be based on the rental of the building, as distinct from the ground rent, which would have been obtainable if the building was occupied for legal purposes and only by the number of persons whom the building was under all the circumstances of the case fitted to accommodate without such overcrowding as is dangerous or injurious to the health of the inmates; and

(b) Shall in the second case be the amount estimated as the value of the building if it had been put into a sanitary condition, or into reasonably good repair, after deducting the estimated expense of putting it into such condition or repair; and

(c) Shall in the third case be the value of the materials of the buildings.

Nothing in this section contained shall repeal any part of section five hundred and thirty-five of this act or impair any of the powers thereby vested in the board of health.

§ 8. Section six hundred and sixty-one of said act, as amended by chapters eighty-four and two hundred and eighty-eight of the laws of eighteen hundred and eight-seven and chapter two hundred and thirty-eight of the laws of eighteen hundred and ninety-two, is hereby amended so as to read as follows:

§ 661. It shall not be lawful, without a permit from the superintendent of buildings, to alter, erect or convert to the purposes of a tenement or lodging-house, a building on any lot where there is another building on the same lot, or to build, or to erect any building on any lot whereon there is already a tenement or lodging-house, unless there is a clear open space exclusively belonging thereto, and extending upward from the ground of at least ten feet between said buildings if they are one story high above the level of the ground; if they are two stories high, the distance between them shall not be less than fifteen feet; if they are three stories high, the distance between them shall not be less than twenty feet; if they are more than three stories high, the distance between them shall not be less than twenty-five feet, but when thorough ventilation of such open spaces can be otherwise secured, such distances may be lessened or modified in special cases by a permit from the department of buildings. At the rear of every building hereafter erected for or converted to the purposes of a tenement or lodging-house on any lot, there shall be and remain a clear open space of not less than ten feet between it and the rear end of the lot. No one continuous building hereafter constructed shall be built or converted to the purposes of a tenement or lodging-house in the city of New York, upon an ordinary city lot, and no existing tenement or lodging-house shall be enlarged or altered, or its lot be diminished so that it shall occupy more than sixty-five per centum of the area of said lot, but where the light and ventilation of such tenement or lodging-house are, in the opinion of the superintendent of buildings, materially improved, he may permit such tenement or lodging-house to occupy an area not exceeding seventy-five per centum of the said lot, and in the same proportion if the lot be greater

or less in size than twenty-five by one hundred feet; but this provision shall not apply to corner lots, in which, however, no such building hereafter constructed, above the first story shall occupy more than ninety-two per centum of the area of a lot, but no such building shall come within five feet of the rear of said lot above the first story. In computing the amount of the lot covered by a building, any shaft or court of less than twenty-five square feet in area shall be considered as part of the building and not as part of the free air space. No shaft or court hereafter constructed in a tenement-house, except elevator shafts or staircase wells, except any shaft the area of which does not exceed ten square feet shall be covered with a roof, skylight or otherwise. In all tenement-houses hereafter constructed or buildings hereafter converted to the purposes of a tenement-house, the stairway communicating between said cellar or basement and the floor next above when placed within any such building shall be located to the rear of the staircase leading from the first story to the upper stories and be inclosed with brick walls, and such stairway shall be provided with fireproof doors at the top and bottom of said flight of stairs; an open area shall be constructed from the level of the cellar to the sidewalk in front of and extending the full width of such houses which shall contain a staircase to give access to the cellar from the street. Where stores are located on the first floor the area may be covered with suitable vault lights or gratings. In all tenement-houses hereafter constructed or buildings hereafter converted to the purposes of a tenement-house the openings to the elevators or lifts in the cellar and at every opening on every story shall be provided with self-closing fireproof doors. This provision, however, shall not apply to such elevators in tenement-houses which are operated by a conductor stationed within the car; but if such elevators run to the cellar, they must be inclosed in the cellar with fireproof walls, and the door to the cellar, if any, must be fireproof and self-closing. In all tenement-houses hereafter constructed or buildings hereafter converted to the purposes of a tenement-house; all staircases shall be fireproof; but this provision as to staircases shall not apply to buildings which are not over five stories high above the cellar and which contain not more than three suites of rooms on a floor. Every tenement-house hereafter constructed or buildings hereafter converted to the purposes of a tenement-house, which building exceeds three stories in height or has basement with three stories above the cellar, shall have the entrance hall and entire stairwell and stairs built of such slow-burning construction or fireproof material as

the superintendent of buildings shall decide; also no wainscoting shall be allowed in the main halls except of cement or other fireproof material; excepting that the handrails and balusters can be of hard wood; at least one flight of such stairs shall extend to the roof and be inclosed in a bulkhead building of fireproof material; on second floor of all tenement-houses not fireproof throughout all entrances from stairs to halls shall be closed off with fireproof double-swing doors; it shall be the duty of the owner or lessee of such tenement-house to have said door on second floor closed every night at not later than ten o'clock. No fan-light or window shall be hereafter placed in the partition or interior wall between the main and private halls of any tenement-house which is not fireproof, and any room in the same. In all tenement-houses hereafter constructed and buildings hereafter converted to the purposes of a tenement-house each room must have a separate window opening into the outer air; each water-closet must have a window opening into the outer air; the floor of each water-closet must be made water-proof with asphalt, cement, tile, metal or some other water-proof material; and such water-proofing must extend at least six inches above the floor so that said floor can be washed or flushed out without leaking. The light and ventilation, for all buildings hereafter erected for or converted to the purposes of tenement or lodging-houses, must be provided in accordance with the requirements of this title and the conditions of a plan and permit previously approved in writing by the superintendent of buildings, and no existing tenement or lodging-house shall be enlarged or altered or its lot diminished without a similar permit. The superintendent of buildings is hereby empowered and directed to make rules and regulations not inconsistent with the requirements of this title, and which in addition to the requirements of this title shall be the conditions of approval for the plans and permits; these rules and regulations shall govern the arrangement and distribution of the uncovered area, size, lighting, location and arrangement of shafts, rooms, cellars and halls, and may be modified or changed from time to time by the superintendent of buildings. No building or premises occupied for a tenement-house shall be used for a lodging-house, private school, stable or for the storage and handling of rags, but the board of health may, by a special permit, allow the maintenance of a private school in such a house. In case of any violation of the provisions of this section, or of any failure to comply with or of any violation of the terms and conditions of the plan for such tenement or lodging-house approved by the department of buildings or of the conditions of the permit granted by the depart-

ment of buildings for such house, or for the air, light and ventilation of the same, any court of record, or any judge or justice thereof shall have power, at any time after service of notice of violation, or of non-compliance, upon the owner, builder or other person superintending the building or converting or any such house, upon proof by affidavit of any violation or non-compliance as aforesaid, or that a plan for light and ventilation of such house has not been approved by the department of buildings, to restrain by injunction order, in an action by the department of buildings, of the further progress of any violation as aforesaid. No undertaking shall be required as a condition of granting an injunction, or by reason thereof.

§ 9. Section six hundred and sixty-three of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 663. Every such house erected after May fourteenth, eighteen hundred and sixty-seven, or converted, shall have adequate chimneys running through every floor, with an open fire-place or grate, or place for a stove, properly connected with one of said chimneys for every family set of apartments. It shall have proper conveniences and receptacles for ashes and rubbish. It shall have croton or other water furnished in sufficient quantity at one or more places on each floor, occupied or intended to be occupied by one or more families; and all tenement-houses shall be provided with a like supply of water by the owners thereof whenever they shall be directed so to do by the board of health. But a failure in the general supply of water by the city authorities shall not be construed to be a failure on the part of such owner, provided that proper and suitable appliances to receive and distribute such water are placed in said house. Provided that the board of health shall see to it that all tenement-houses are so supplied before January first, eighteen hundred and eighty-nine. Every tenement-house shall have the floor of the cellar made water tight; and the ceiling plastered, and when the house is located over filled-in ground, or over marshy ground, or ground on which water lies, the cellar floor shall be covered so as to effectually prevent evaporation or dampness. It shall be the duty of the board of health that the cellars of all tenement-houses are so made or altered as to comply with this section before January first, eighteen hundred and ninety. Every such house erected after May seventh, eighteen hundred and eighty-seven, or converted, shall have the halls on each floor open directly to the external air, with suitable windows, and shall have no room or other obstruction at the end, unless sufficient light or ventilation is otherwise provided for in said halls in a

manner approved by the superintendent of buildings. The owner or lessee of every tenement or lodging-house in the city of New York shall keep a light burning in the hallway upon each floor of said house from sunset until ten p. m. throughout the year. In every tenement-house in the said city in which there is a hallway or hallways with no window opening from such hallway outside of said house, a light shall be maintained by said owner or lessee in each such hallway between the hours of eight a. m. and ten p. m. of each day unless said hallway shall be otherwise sufficiently lighted. The fire department of the city of New York is hereby vested with authority to prescribe reasonable regulations concerning such precautions as may be necessary to prevent danger from fire arising from such lights.

§ 10. Section six hundred and sixty-four of said act, as amended by chapter eighty-four of the laws of eighteen hundred and eighty-seven, is hereby amended so as to read as follows:

§ 664. Whenever it shall be certified to the board of health by the sanitary superintendent that any tenement-house or room therein being without sufficient ventilation is so overcrowded that there shall be afforded less than four hundred cubic feet of air to each adult and two hundred cubic feet of air to each child under twelve years of age occupying such building or room, the said board shall issue an order requiring the number of occupants of such building or room to be reduced in accordance with this provision. Whenever there shall be more than eight families living in any tenement-house, in which the owner thereof does not reside, there shall be a janitor, housekeeper or some other responsible person, who shall reside in the said house, and have charge of the same, if the board of health shall so require. Permits may be granted to the owners of lodging-houses now in operation on compliance with the rules and regulations of the sanitary code now in force in the city of New York.

§ 11. Section six hundred and sixty-five of said act is hereby amended so as to read as follows:

§ 665. Every owner or other person violating any provision of this title shall be guilty of a misdemeanor, punishable by a fine of not less than ten dollars nor more than one hundred dollars, or by imprisonment for not more than ten days for each and every day that such violation shall continue, or by both such fine and imprisonment, in the discretion of the court. He shall also be liable to pay a penalty of ten dollars for each and every day that such offense shall continue. Such penalty may be sued for and

recovered by the board of health in any civil tribunal of said city, and when recovered shall be paid over to the city chamberlain and become part of the tenement-house fund, directed by section one hundred and ninety-four, subdivision nine of this act, to be annually appropriated to the credit of the health department and to be expended by the board of health. In every proceeding for a violation of this title, and in every such action for a penalty, it shall be the duty of the owner of the house to prove the date of its erection or conversion to its existing use, if that fact shall become material, and the owner shall be, prima facie, the person liable to pay such penalty, and after him the person who is the lessee of the whole house, in preference to the tenant or lessee of a part thereof. In any such action the owner, lessee, and occupant, or any two of them, may be made defendants, and judgment may be given against the one or more shown to be liable, as if he or they were sole defendant or defendants. No part of chapter two hundred and seventy-five of the laws of eighteen hundred and ninety-two, or of any other act shall be so construed as to abrogate or impair the power of the board of health to sue for and recover such a penalty whether the liability to pay said penalty shall arise from a violation of the laws, ordinances or sections of the sanitary code, in regard to light, ventilation, plumbing and drainage, so far as the same affects the sanitary condition of the premises; and except that the department of buildings of the city of New York shall have jurisdiction and cognizance over all matters and things in this title contained which relate to the construction of buildings or structures, or any part thereof, and as to light, ventilation, drainage and plumbing. Any penalty for a violation of the provisions of this title in respect to the matters aforesaid, shall be sued for and recovered in the same manner as the violations of the building laws of the city of New York are now sued for and recovered by the department of buildings in the city of New York; and said penalty so collected shall be paid to the comptroller of the city of New York to be applied as other penalties collected by said department are applied.

§ 12. Section six hundred and sixty-seven of said act, as amended by chapter three hundred and twenty-nine of the laws of eighteen hundred and ninety-two, is hereby amended so as to read as follows:

§ 667. The superintendent of buildings shall have authority to make other regulations as to light and ventilation of all new tenement or lodging-houses consistent with the foregoing; when he shall be satisfied that such regulations will secure equally well the health and safety of the occupants; likewise the board

of health shall have authority to make other regulations as to cellars and as to ventilation in completed buildings, consistent with the foregoing, where it shall be satisfied that such regulations will secure equally well the health of the occupants.

§ 13. This act is hereby declared to be a remedial statute and is to be construed liberally, to secure the beneficial interests and purposes thereof. Nothing herein contained shall be construed to affect any suit or proceeding now pending in any court, or any rights acquired, or liability incurred, or any cause or causes of action accrued or existing, whether for a penalty or otherwise, under any act repealed or amended by this act. No powers of the department of buildings are hereby transferred to the board of health. All acts and parts of acts in conflict with any portion of this act are hereby repealed.

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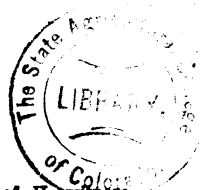
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Hon. Edmund O'Connor introduced the Tenement House report and bills in the Senate and Hon. D. E. Ainsworth in the Assembly; the latter were approved by Mayor Wm. L. Strong, and signed by Governor Levi P. Morton.

The faithful and valuable services are hereby acknowledged of Alexander Litman who acted as assistant to the Secretary throughout the entire investigation of the committee, and who afterward assisted in carrying the Report through the press.—R. W. G.

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